



U.S. Fish & Wildlife Service

Migratory bird hunting activity and harvest during the 2015-16 and 2016-17 hunting seasons

August 2017



Hunter setting decoys.
USFWS/Milton Friend

Migratory bird hunting activity and harvest during the 2015-16 and 2016-17 hunting seasons.

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Abstract: National surveys of migratory bird hunters were conducted during the 2015 and 2016 hunting seasons. Hunters of the following types of migratory birds were surveyed: waterfowl (family Anatidae), doves (mourning [*Zenaida macroura*] and white-winged [*Z. asiatica*]), band-tailed pigeon (*Patagioenas fasciata*), American woodcock (*Scolopax minor*), Wilson's snipe (*Gallinago delicata*), American coot (*Fulica americana*), gallinules (common gallinule [*Gallinula galeata*] and purple gallinule [*Porphyrrio martinica*]), and rails (king rail [*Rallus elegans*], clapper rail [*R. longirostris*], Virginia rail [*R. limicola*], and sora [*Coturnicops noveboracensis*]). Nearly 1 million waterfowl hunters harvested 10,993,000 ($\pm 4\%$) ducks and 2,538,000 ($\pm 4\%$) geese in the 2015 hunting season, and over 1 million waterfowl hunters harvested 11,607,400 ($\pm 5\%$) ducks and 3,266,900 ($\pm 5\%$) geese in the 2016 season. Mallard (*Anas platyrhynchos*), green-winged teal (*A. crecca*), gadwall (*A. strepera*), blue-winged/cinnamon teal (*A. discors* and *A. cyanoptera*), and wood duck (*Aix sponsa*) were the most-harvested duck species in the U.S., and Canada goose (*Branta canadensis*) was the predominant goose species in the goose harvest. Approximately 748,800 dove hunters harvested 13,157,300 ($\pm 6\%$) mourning doves in 2015 and 837,800 hunters harvested 13,502,000 ($\pm 8\%$) in 2016. Woodcock hunters numbered about 95,600 in 2015 and 104,800 in 2016, and harvested 200,200 ($\pm 15\%$) in 2015, and 202,300 ($\pm 16\%$) in 2016. About 17,200 people hunted snipe in 2015 and 17,300 in 2016, and they harvested 44,500 ($\pm 47\%$) and 118,400 ($\pm 55\%$) snipe in 2015 and 2016, respectively. Coot hunters (about 27,400 in 2015 and 21,800 in 2016) harvested 253,200 ($\pm 92\%$) coots in 2015 and 138,200 ($\pm 61\%$) in 2016. Gallinule hunters (about 4,500 in 2015 and 1,300 in 2016) harvested 8,900 ($\pm 107\%$) in 2015 and 10,000 ($\pm 184\%$) in 2016. Approximately 6,400 rail hunters harvested 26,800 ($\pm 68\%$) rails in 2015 and 1,300 rail hunters harvested 14,500 ($\pm 41\%$) rails in 2016.

Introduction

In the 1952-53 hunting season, the U.S. Fish and Wildlife Service (FWS) began conducting a survey of Federal Duck Stamp purchasers to estimate waterfowl hunter activity and harvest in the United States. That survey was conducted annually through the 2001-02 hunting season, after which it was replaced by a new migratory game bird harvest survey system. In 1992, the FWS and State Fish and Wildlife Agencies (States) established the Migratory Bird Harvest Information Program (HIP), which was fully operational nationwide by 1999 (Elden et al. 2002). This cooperative State-Federal program requires licensed migratory game bird hunters to register annually in each state in which they hunt. Each State is responsible for collecting the name, address, and date of birth from each migratory bird hunter, asking each of them a series of general screening questions about their his/her hunting success the previous year, and sending this information to the FWS. The States are also responsible for providing migratory bird hunters with proof of compliance to carry while they are hunting. The FWS is responsible for using these data to conduct annual national migratory game bird hunter activity and harvest surveys.

This report presents hunter activity and harvest estimates from the HIP surveys for the 2015-16 and 2016-17 hunting seasons. These estimates are preliminary, pending (1) final counts of the number of HIP registrants in each state each season, and (2) complete audits of all survey response data.

HIP Survey Design and Methods

Sample Frame. The HIP sample frame consisted of people who identified themselves as potential migratory game bird hunters when they purchased State hunting licenses. The States forwarded the sample frame data to the FWS either weekly or twice a month, starting in August and continuing through the end of their migratory bird hunting seasons. People who hunted migratory birds in more than one state had to comply with the HIP requirement in each state in which they hunted. Thus, the sample frame was specific to each state.

Stratification and Sample Selection. States asked each migratory bird hunter a series of short screening questions about the species they hunted and their hunting success the previous year. The list of species or species-groups involved (dependent on seasons in each state) included ducks, sea ducks, geese, brant, doves, band-tailed pigeons, woodcock, coots and/or snipe, rails and/or gallinules, and sandhill cranes. The FWS used this prior-year information as a predictor of their current year hunting activity and success to assign each hunter to a success/activity stratum for each of the 10 species or species-groups based on his or her answers to the screening questions. From each State list the FWS selected stratified samples for each species or species-group, sampling the small group of active/very successful hunters at a high rate, the larger group of less successful hunters at a lower rate, and the very large group of hunters who rarely if ever hunt the species or species-group at a very low rate. The FWS conducted 5 separate harvest surveys to estimate hunter activity and harvest of: (1) waterfowl (ducks, sea ducks, geese, and brant), (2) doves and band-tailed pigeons, (3) woodcock, (4) snipe, rails, gallinules, and coots, and (5) sandhill cranes.

Survey Methodology. Contact before or early in the hunting season, and a daily hunting diary format, were used in an effort to reduce memory and prestige bias, both of which result in overestimation (Atwood 1956). Hunters selected for the surveys were asked to record the date of each hunt, the state and county where they hunted, and how many birds of various species or species-groups they personally bagged that day. As a check on recording and for hunters who forgot to record their daily hunting information throughout the season, or did not receive the form until after the hunting season began, space was provided on the form to record season totals. Hunter response was voluntary.

Soon after the initial batch of names and addresses was received from a State, stratified samples were selected according to predetermined sampling rates. All surveys were conducted using Dillman's Total Design Method for mail surveys (Dillman 1978, Dillman 1991) to maximize survey response and ensure quality and timely responses. A survey packet including a cover letter and a survey form for recording daily hunting activity was sent to each selected hunter within one to two weeks after his/her name was received. The sample selection and initial mailing process continued with each subsequent batch of names and addresses (roughly twice per month), with the last initial mailing occurring on or shortly after the date the season closed in the state. Postcards were sent at the close of the season reminding sampled hunters to return their completed survey forms and thanking them for their help. About 3 weeks after this mailing, a follow-up packet with an additional form was sent to each hunter who had not yet responded. Finally, 3-4 weeks later, an additional follow-up packet was sent to the remaining non-respondents.

Analysis. Standard analyses for stratified samples (Cochran 1977, Steele and Torrie 1980) were used to obtain estimates of harvest and hunter activity for each state and species or species-group combination. The proportion of respondents who hunted (active hunters), their average days hunted and their average seasonal harvest were calculated and the corresponding totals estimated (active hunters, days hunted, birds bagged) at the state level. Variance estimates for these parameters were also calculated and converted to 95% confidence intervals. The number of days afield and the number of birds harvested were also estimated at the management unit and national levels, along with their corresponding 95% confidence intervals. However, the total number of active hunters (and any averages per active hunter) could not be estimated at the management unit or national levels because some people hunted migratory birds in more than one state. To calculate total numbers at larger geographic scales, we summed the number of active hunters in each state. This may overestimate the total number of active hunters because hunters are required to register for HIP in each state in which they hunt migratory birds.

Parts Collection Surveys

The FWS has conducted a cooperative Waterfowl Parts Survey annually to estimate the species, age, and sex composition of the duck harvest since 1961, and the species and age composition of the goose harvest since 1962. Hunters who agreed to participate in this survey were provided with large, postage-paid “wing envelopes” and were asked to send us a wing from each duck, brant, and coot they shot and the tail feathers and primary feather tips from each goose they shot throughout the hunting season. They were also asked to report the state, county, and date of harvest for each specimen they submitted. After the waterfowl hunting seasons ended, FWS and State biologists examined the specimens to determine the species, age, and sex of the birds.

Species composition estimates derived from the Waterfowl Parts Survey were combined with harvest estimates from the HIP waterfowl survey to calculate species-specific duck and goose harvest estimates. Similarly, date information provided by Waterfowl Parts Survey participants was combined with HIP survey results to estimate special September season duck and goose harvests. Estimates of the number of immatures per adult in the harvest (age ratio), and the number of males per female (sex ratio) were calculated for each species and state. Because sampling intensity varied among states, state ratios were weighted by harvest estimates from the HIP waterfowl survey to obtain flyway and U.S. ratios.

The FWS has conducted a Woodcock Wing Survey annually since 1977, primarily to estimate the age and sex composition of the woodcock harvest. Age and sex ratio estimates obtained from the woodcock wings collected in 1963-2016 were reported in “American woodcock population status, 2017” (Seamans and Rau 2017). This survey was expanded in 1997 to include rail wings to determine the species composition of the rail harvest, and band-tailed pigeon wings to obtain age ratio estimates.

Beginning in 2007, the FWS has performed a national Mourning Dove Parts Collection Survey to determine an index of recruitment. Selected hunters were asked to send in a wing from mourning doves harvested during the first two hunts of the season. Pooled age ratios from 2007-2016 were reported in “Mourning dove population status, 2017” (Seamans 2017).

Survey Results

Waterfowl Hunter Activity and Harvest (Tables 1-7, Figures 1-3). HIP waterfowl harvest survey sample sizes and response rates were 103,541 hunters and 36%, respectively, for the 2015-16, and 101,283 hunters and 30% for the 2016-17 survey. Species-specific estimates for ducks and geese (Table 1A-E) are presented by flyway. We were unable to split the estimates for Colorado, Montana, New Mexico, and Wyoming into their Central and Pacific Flyway portions for this report, so we arbitrarily assigned all of Colorado, New Mexico, and Wyoming to the Central Flyway and Montana to the Pacific Flyway. However, the Waterfowl Parts Collection Survey enabled us to provide Flyway-specific point estimates of duck and goose harvest for those four states; those point estimates are shown in Table 2.

Sea duck hunter activity and harvest were estimated separately from other ducks for states that had special sea duck seasons or regulations (Table 3). Likewise, brant hunter activity and harvest along the Atlantic and Pacific coasts was estimated separately and reported in Table 4. Sea duck and brant harvest estimates are also shown in the species-specific waterfowl estimates in Table 1, but the estimates of sea ducks and brant days afield and active hunters shown in Tables 3 and 4 are not included in the estimates of duck and goose days afield or active duck and goose hunters shown in Table 1.

Estimates for special September duck seasons are given in Table 5, and Table 6 shows estimates of Canada goose harvest during special resident goose seasons compared to regular season harvest. Table 7 summarizes the waterfowl harvest in Canada; those data were provided by the Canadian Wildlife Service, which conducts annual surveys similar to those conducted in the U.S.

Long-term trends of duck harvest, and goose harvest since 1961, are shown in Figures 1-2. The curves are locally weighted regression (lowess) lines (Cleveland and Devlin 1988) that fit a pattern to the majority of the estimates and identify points that deviate from that pattern. These figures show one lowess line and point estimates for the Federal Duck Stamp-based survey's estimates from 1961-2001 and a separate lowess line and point estimates for the HIP survey estimates for 1999-present.

Waterfowl Age and Sex Ratios (Tables 8-12, Figures 3-6). The 2015-16 Waterfowl Parts Survey collected 76,955 duck wings and 13,762 goose tails and primary tips from 4,145 hunters; the 2016-17 sample consisted of 75,474 duck wings and 14,049 goose tails and primary wing tips from 4,323 hunters. State-specific mallard age ratios and flyway-level age ratios for other ducks species are reported in Tables 8 and 9, respectively, followed by state-specific mallard sex ratios (Table 10) and flyway-level sex ratios for other duck species (Table 11). Table 12 gives age ratios for geese. Figures 3-6 show the long-term trends in age ratios of mallards (Figure 3), northern pintails (Figure 4), American black ducks and wood ducks (Figure 5) and lesser scaup (Figure 6).

Dove and Band-tailed Pigeon Hunter Activity and Harvest (Tables 13-15). The dove and band-tailed pigeon estimates were based on samples of 53,184 hunters in 2015-16 (42% response rate) and 44,897 hunters in 2016-17 (39% response rate). Estimated numbers of active hunters, days

afield, harvest and birds harvested per hunter are given in Table 13 for mourning doves, Table 14 for white-winged doves and Table 15 for band-tailed pigeons.

Woodcock Hunter Activity and Harvest (Table 16). Results of the HIP woodcock harvest survey are presented in Table 16. The 2015-16 survey had a sample size of 18,556 hunters and a 48% response rate; the 2016-17 survey sample size and response rate were 19,301 hunters and 46%.

Snipe, Coot, Gallinule, and Rail Hunter Activity and Harvest (Tables 17-21). The sample for the 2015-16 snipe, coot, gallinule, and rail harvest survey was 26,393 hunters (44% response rate) and 25,083 hunters (39% response rate) for the 2016-17 survey. Tables 17-20 give the estimates for Wilson's snipe (Table 17), American coot (Table 18), gallinules (Table 19; all species combined) and rails (Table 20; all species combined).

We believe that the number of rail wings collected each year is too small to provide reliable annual species composition estimates, even at the flyway and national levels. Therefore, we used 5-year running averages to obtain species-specific rail harvest estimates (Table 21). The 2015-16 estimates are based on the species composition of 2,331 rail wings collected from 116 hunters collected during 2011-2015, and the 2016-17 estimates are based on 2,171 rail wings collected from 110 hunters collected during 2012-2016.

Alaska Sandhill Crane Hunter Activity and Harvest Estimates. In 2015, the sample frame from Alaska was incomplete. Our random sample did not result in any responses from active or successful crane hunters. Therefore, we were not able to estimate activity or harvest for sandhill cranes. The 2016-17 estimates were derived from surveys of 759 hunters with a 46% response rate. For Alaska's 2016 season, we estimated that 1,100 active sandhill crane hunters spent 4,100 days hunting cranes and harvested 1,555 birds.

Mid-continent sandhill crane hunting activity and harvest in the Central Flyway states are estimated in a separate annual survey. Results of that survey for the 2015 and 2016 seasons were reported in "Status and harvests of sandhill cranes: Mid-continent, Rocky Mountain, Lower Colorado River Valley and Eastern populations" (Dubovsky 2017).

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Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2015 and 2016 hunting seasons.

Duck Species Composition	Connecticut		Delaware		Florida	
	2015	2016	2015	2016	2015	2016
Mallard	2,630	5,521	7,914	9,899	523	550
Domestic Mallard	0	39	168	0	209	220
Black Duck	731	1,197	2,862	6,320	0	110
Mallard x Black Hybrid	0	0	253	76	209	0
Mottled Duck	0	0	0	0	8,479	7,364
Gadwall	49	154	2,357	1,599	733	1,759
Wigeon	97	0	758	685	2,617	2,968
Green-winged Teal	779	270	7,072	6,320	3,559	14,948
Blue-winged/Cinnamon Teal	97	0	168	0	55,690	42,866
Northern Shoveler	0	0	926	990	3,140	5,606
Northern Pintail	97	0	758	381	733	4,396
Wood Duck	1,266	2,934	1,936	3,198	9,945	9,123
Redhead	0	0	168	0	4,920	5,715
Canvasback	0	0	168	0	105	550
Greater Scaup	97	0	0	0	628	0
Lesser Scaup	49	39	84	76	9,107	2,418
Ring-necked Duck	195	39	253	761	66,891	54,956
Goldeneyes	195	154	84	76	0	0
Bufflehead	828	1,042	421	6,548	2,094	1,759
Ruddy Duck	0	0	168	76	733	1,209
Long-tailed Duck	3,922	3,298	0	1,062	0	110
Eiders	0	450	0	0	0	0
Scoters	0	300	1,230	1,417	1,570	769
Hooded Merganser	341	540	0	533	419	659
Other Mergansers	244	1,158	84	0	628	110
Other Ducks	0	0	0	0	10,468	7,364
Total Duck Harvest	11,600±24%	17,100±30%	27,800±20%	40,000±18%	183,400±20%	165,500±22%
Total Active Duck Hunters ^a	1,500±24%	2,000±23%	3,200±13%	4,200±11%	13,500±17%	15,000±20%
Total Duck Hunter Days Afield ^a	8,500±24%	11,800±26%	22,800±17%	29,500±18%	79,900±17%	77,100±20%
Seasonal Duck Harvest Per Hunter ^a	5.1±34%	6.6±38%	8.2±24%	8.9±22%	13.6±26%	11.0±30%
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Goose Species Composition						
Canada Goose	5,602	12,469	12,097	13,543	841	0
Snow Goose	60	0	1,512	5,389	0	3,378
Blue Goose	0	0	0	0	0	0
Ross' Goose	0	0	0	0	0	0
White-fronted Goose	0	0	0	0	0	0
Brant	91	290	118	397	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	5,800±35%	12,800±33%	13,700±20%	19,300±21%	800±91%	3,400±84%
Total Active Goose Hunters ^b	1,100±25%	1,600±25%	3,200±14%	3,700±13%	1,200±58%	1,300±61%
Total Goose Hunter Days Afield ^b	5,400±26%	9,600±28%	20,700±19%	19,300±17%	3,000±93%	6,000±83%
Seasonal Goose Harvest Per Hunter ^b	5.2±43%	8.0±42%	4.3±25%	5.2±25%	.7±108%	2.6±104%
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Active Waterfowl Hunters ^c	2,300±21%	2,600±19%	4,300±11%	5,700±9%	13,500±17%	15,000±20%
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Sample Sizes						
DuckWings	186	366	317	521	1,752	1,506
GooseTails	190	365	136	269	15	1

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2015 and 2016 hunting seasons.

Duck Species Composition	Georgia		Maine		Maryland	
	2015	2016	2015	2016	2015	2016
Mallard	8,604	13,136	4,159	8,018	27,889	38,504
Domestic Mallard	0	0	0	0	1,073	314
Black Duck	0	0	807	2,687	6,436	6,487
Mallard x Black Hybrid	0	0	31	85	165	0
Mottled Duck	0	0	0	0	0	0
Gadwall	4,302	3,649	0	0	4,703	5,545
Wigeon	0	487	62	85	1,568	3,244
Green-winged Teal	7,170	16,542	1,242	1,919	7,591	3,557
Blue-winged/Cinnamon Teal	21,032	5,109	62	171	413	837
Northern Shoveler	478	1,216	0	0	578	837
Northern Pintail	0	1,460	93	128	2,145	2,930
Wood Duck	71,223	70,546	3,166	5,459	6,271	9,835
Redhead	1,434	730	0	0	1,568	2,616
Canvasback	239	730	0	0	495	1,883
Greater Scaup	239	243	31	43	0	1,569
Lesser Scaup	1,195	487	93	85	413	3,244
Ring-necked Duck	12,667	15,812	217	810	825	1,674
Goldeneyes	0	0	497	597	0	419
Bufflehead	956	730	1,024	2,474	7,509	9,417
Ruddy Duck	239	3,406	0	0	83	732
Long-tailed Duck	239	487	423	759	3,926	6,892
Eiders	0	0	917	1,822	0	0
Scoters	0	243	141	1,063	13,891	11,372
Hooded Merganser	5,736	4,865	279	597	1,403	1,465
Other Mergansers	0	0	372	640	248	314
Other Ducks	0	0	0	0	0	0
Total Duck Harvest	135,800±26%	139,900±15%	13,600±23%	27,400±39%	89,200±13%	113,700±13%
Total Active Duck Hunters ^a	18,000±15%	19,000±15%	3,300±18%	4,000±17%	15,100±9%	16,800±9%
Total Duck Hunter Days Afield ^a	102,200±24%	92,400±16%	15,300±22%	20,100±29%	65,100±12%	77,800±13%
Seasonal Duck Harvest Per Hunter ^a	7.5±30%	7.4±21%	3.7±29%	5.9±42%	4.7±16%	5.7±16%
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Goose Species Composition						
Canada Goose	56,544	61,806	7,196	11,444	98,386	153,911
Snow Goose	0	966	39	0	7,089	3,271
Blue Goose	0	966	0	0	611	344
Ross' Goose	0	0	0	0	0	0
White-fronted Goose	0	0	0	0	0	0
Brant	0	0	0	0	19	236
Other Geese	0	0	0	0	0	0
Total Goose Harvest	56,500±36%	63,700±41%	7,200±27%	11,400±30%	106,100±13%	157,800±13%
Total Active Goose Hunters ^b	15,300±18%	13,400±19%	1,900±24%	2,800±22%	22,000±7%	25,800±6%
Total Goose Hunter Days Afield ^b	68,600±27%	69,800±26%	8,400±35%	16,700±44%	108,700±10%	131,900±10%
Seasonal Goose Harvest Per Hunter ^b	3.7±40%	4.8±45%	3.8±36%	4.0±37%	4.8±15%	6.1±14%
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Active Waterfowl Hunters ^c	18,200±15%	19,500±15%	4,100±17%	5,000±16%	28,600±6%	32,800±5%
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Sample Sizes						
DuckWings	568	575	412	582	983	965
GooseTails	109	66	184	215	869	916

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2015 and 2016 hunting seasons.

Duck Species Composition	Massachusetts		New Hampshire		New Jersey	
	2015	2016	2015	2016	2015	2016
Mallard	4,856	6,269	3,635	2,403	9,155	11,725
Domestic Mallard	0	0	37	0	0	123
Black Duck	1,913	2,101	712	846	4,763	9,884
Mallard x Black Hybrid	147	200	0	0	106	61
Mottled Duck	0	0	0	0	0	0
Gadwall	0	133	0	0	1,376	1,166
Wigeon	147	33	0	0	476	184
Green-winged Teal	1,324	367	112	271	5,186	4,911
Blue-winged/Cinnamon Teal	49	33	0	68	0	184
Northern Shoveler	0	33	0	0	159	675
Northern Pintail	0	33	0	0	529	246
Wood Duck	5,494	4,468	4,310	3,791	3,969	8,226
Redhead	0	0	0	0	0	61
Canvasback	0	0	0	0	53	0
Greater Scaup	49	33	0	0	423	921
Lesser Scaup	0	0	0	0	159	553
Ring-necked Duck	294	33	75	0	0	737
Goldeneyes	0	67	0	68	0	184
Bufflehead	2,845	1,434	262	0	9,790	15,716
Ruddy Duck	0	0	0	0	53	307
Long-tailed Duck	667	2,123	0	100	1,110	3,604
Eiders	1,767	4,034	0	0	0	0
Scoters	1,884	2,548	0	134	5,182	3,111
Hooded Merganser	491	267	300	203	741	2,333
Other Mergansers	245	333	187	102	529	1,596
Other Ducks	0	0	0	0	0	0
Total Duck Harvest	22,200±34%	24,500±25%	9,600±27%	8,000±31%	43,800±19%	66,500±27%
Total Active Duck Hunters ^a	4,000±22%	3,700±27%	2,400±18%	1,700±20%	5,600±11%	5,900±14%
Total Duck Hunter Days Afield ^a	23,100±29%	20,700±31%	13,800±22%	10,700±38%	29,800±15%	39,400±19%
Seasonal Duck Harvest Per Hunter ^a	4.5±40%	4.3±37%	4.1±33%	4.7±37%	6.7±21%	10.1±30%
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Goose Species Composition						
Canada Goose	9,764	11,430	4,061	4,746	15,329	30,647
Snow Goose	0	0	0	0	664	2,757
Blue Goose	0	0	0	0	0	79
Ross' Goose	0	0	0	0	0	0
White-fronted Goose	0	0	0	0	0	0
Brant	234	1,156	0	49	702	2,538
Other Geese	0	0	0	0	0	0
Total Goose Harvest	10,000±31%	12,600±42%	4,100±28%	4,800±38%	16,700±25%	36,000±27%
Total Active Goose Hunters ^b	3,300±21%	3,600±27%	1,500±23%	1,200±24%	3,600±14%	4,300±16%
Total Goose Hunter Days Afield ^b	18,100±27%	18,100±31%	9,600±33%	6,900±34%	16,300±22%	25,800±23%
Seasonal Goose Harvest Per Hunter ^b	2.9±37%	3.2±50%	2.8±37%	4.0±45%	4.5±29%	7.7±31%
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Active Waterfowl Hunters ^c	5,100±19%	5,100±23%	2,900±17%	1,900±19%	6,900±9%	7,500±11%
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Sample Sizes						
DuckWings	474	557	257	236	742	999
GooseTails	185	162	78	43	257	474

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2015 and 2016 hunting seasons.

Duck Species Composition	New York		North Carolina		Pennsylvania	
	2015	2016	2015	2016	2015	2016
Mallard	50,706	61,265	34,770	60,296	28,923	29,686
Domestic Mallard	134	405	1,434	239	383	233
Black Duck	9,767	11,483	5,377	7,896	4,022	2,720
Mallard x Black Hybrid	535	473	0	479	575	155
Mottled Duck	0	0	0	0	0	0
Gadwall	2,676	2,769	19,894	48,094	670	2,098
Wigeon	5,820	5,404	14,876	39,719	192	233
Green-winged Teal	9,566	7,430	19,356	38,762	2,969	1,166
Blue-winged/Cinnamon Teal	602	405	1,792	6,700	670	155
Northern Shoveler	803	743	11,112	13,399	287	155
Northern Pintail	2,609	3,512	8,244	9,332	96	155
Wood Duck	19,199	19,589	100,725	141,649	18,101	17,641
Redhead	1,806	2,702	13,800	7,178	287	155
Canvasback	134	135	358	479	0	0
Greater Scaup	2,141	2,567	717	2,393	192	1,787
Lesser Scaup	1,672	1,351	16,310	11,964	383	1,088
Ring-necked Duck	1,338	2,297	23,658	35,173	1,149	389
Goldeneyes	4,415	6,147	0	479	383	389
Bufflehead	9,231	6,822	13,263	24,645	3,927	1,710
Ruddy Duck	134	68	3,405	2,393	287	389
Long-tailed Duck	5,560	10,083	179	239	96	0
Eiders	802	0	0	0	0	0
Scoters	2,819	4,683	9,857	3,111	287	78
Hooded Merganser	1,539	1,486	8,603	16,749	2,299	933
Other Mergansers	2,074	4,526	1,434	1,196	3,256	3,730
Other Ducks	0	68	0	0	0	0
Total Duck Harvest	136,100±13%	156,400±17%	309,200±20%	472,600±36%	69,400±24%	65,000±25%
Total Active Duck Hunters ^a	19,200±9%	17,600±10%	31,700±18%	31,500±19%	19,400±21%	20,000±21%
Total Duck Hunter Days Afield ^a	102,400±12%	104,000±18%	185,200±24%	242,100±34%	88,900±26%	86,900±27%
Seasonal Duck Harvest Per Hunter ^a	6.7±16%	8.2±19%	9.8±27%	15.0±41%	3.6±32%	3.3±33%
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Goose Species Composition						
Canada Goose	95,354	146,415	36,029	51,848	74,015	100,053
Snow Goose	7,351	3,389	858	358	2,145	3,701
Blue Goose	0	0	0	0	195	0
Ross' Goose	0	0	0	0	0	0
White-fronted Goose	0	0	0	0	0	0
Brant	1,999	5,304	2,643	1,261	0	255
Other Geese	0	0	0	0	0	128
Total Goose Harvest	104,700±20%	155,100±22%	39,500±30%	53,500±31%	76,400±26%	104,100±23%
Total Active Goose Hunters ^b	16,800±8%	17,200±9%	18,300±24%	22,900±24%	22,600±17%	23,600±17%
Total Goose Hunter Days Afield ^b	96,500±12%	98,100±15%	45,700±32%	79,100±31%	95,000±18%	115,700±23%
Seasonal Goose Harvest Per Hunter ^b	6.1±22%	8.7±24%	2.0±38%	2.3±39%	3.4±31%	4.4±28%
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Active Waterfowl Hunters ^c	24,500±8%	24,200±8%	34,600±18%	32,100±18%	32,500±16%	36,300±15%
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Sample Sizes						
DuckWings	2,017	2,195	1,725	1,975	725	837
GooseTails	995	960	88	148	783	816

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2015 and 2016 hunting seasons.

Duck Species Composition	Rhode Island		South Carolina		Vermont	
	2015	2016	2015	2016	2015	2016
Mallard	1,347	919	19,234	16,336	5,700	7,357
Domestic Mallard	0	0	424	684	0	50
Black Duck	577	362	566	941	989	801
Mallard x Black Hybrid	27	0	0	0	0	100
Mottled Duck	0	0	1,131	1,112	0	0
Gadwall	137	56	10,466	8,895	0	50
Wigeon	0	28	1,273	770	175	100
Green-winged Teal	55	84	15,557	14,454	1,745	2,252
Blue-winged/Cinnamon Teal	0	0	6,789	5,474	233	150
Northern Shoveler	0	0	3,960	2,651	58	0
Northern Pintail	0	84	1,131	1,197	175	150
Wood Duck	302	306	48,935	70,046	4,188	3,353
Redhead	0	0	849	257	0	50
Canvasback	0	0	0	86	0	0
Greater Scaup	247	56	0	342	349	0
Lesser Scaup	27	28	3,960	1,026	116	100
Ring-necked Duck	0	0	16,830	16,592	175	200
Goldeneyes	220	0	141	0	524	1,702
Bufflehead	1,319	1,559	2,404	1,539	0	300
Ruddy Duck	0	0	849	428	0	50
Long-tailed Duck	0	0	141	0	0	0
Eiders	413	221	0	86	0	0
Scoters	270	299	1,273	2,309	58	250
Hooded Merganser	495	362	3,394	3,934	58	150
Other Mergansers	577	362	141	171	175	450
Other Ducks	0	0	0	0	0	0
Total Duck Harvest	6,000±38%	4,700±33%	139,400±16%	149,300±20%	14,700±18%	17,600±17%
Total Active Duck Hunters ^a	700±16%	500±18%	16,300±19%	17,500±22%	2,600±14%	3,400±15%
Total Duck Hunter Days Afield ^a	5,300±22%	3,700±22%	99,500±22%	91,200±24%	14,500±19%	16,900±18%
Seasonal Duck Harvest Per Hunter ^a	7.4±41%	8.1±37%	8.5±25%	8.5±29%	5.8±23%	5.2±22%
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Goose Species Composition						
Canada Goose	3,700	2,934	19,257	15,769	6,733	8,804
Snow Goose	0	18	0	0	0	0
Blue Goose	0	0	0	0	0	0
Ross' Goose	0	0	0	0	0	0
White-fronted Goose	0	0	0	0	0	0
Brant	262	507	0	0	0	62
Other Geese	0	0	0	0	0	0
Total Goose Harvest	4,000±50%	3,500±39%	19,300±47%	15,800±39%	6,700±24%	8,900±28%
Total Active Goose Hunters ^b	500±23%	500±20%	5,000±28%	6,400±32%	2,200±17%	2,100±20%
Total Goose Hunter Days Afield ^b	4,400±33%	2,900±27%	23,400±47%	23,000±54%	10,600±24%	9,900±28%
Seasonal Goose Harvest Per Hunter ^b	7.2±55%	6.3±44%	3.9±55%	2.4±50%	3.1±29%	4.3±34%
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Active Waterfowl Hunters ^c	1,000±14%	700±14%	16,400±19%	19,100±22%	3,000±14%	3,800±14%
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Sample Sizes						
DuckWings	237	191	986	1,746	253	352
GooseTails	219	190	11	26	143	144

Table 1A. Preliminary estimates of waterfowl harvest and hunter activity in the Atlantic Flyway during the 2015 and 2016 hunting seasons.

Duck Species Composition	Virginia		West Virginia		Flyway Total	
	2015	2016	2015	2016	2015	2016
Mallard	37,150	39,272	2,917	2,356	250,114	313,511
Domestic Mallard	0	184	0	40	3,863	2,531
Black Duck	6,325	6,822	139	220	45,986	60,875
Mallard x Black Hybrid	178	184	0	0	2,226	1,814
Mottled Duck	0	0	0	0	9,611	8,476
Gadwall	11,403	16,133	139	60	58,906	92,160
Wigeon	1,960	1,383	0	20	30,020	55,342
Green-winged Teal	6,058	2,581	0	100	89,342	115,934
Blue-winged/Cinnamon Teal	1,247	1,106	139	0	88,984	63,257
Northern Shoveler	1,247	3,964	0	20	22,748	30,290
Northern Pintail	891	1,383	0	20	17,501	25,407
Wood Duck	16,125	16,501	2,083	1,517	317,238	388,184
Redhead	1,336	277	0	0	26,169	19,741
Canvasback	356	645	0	0	1,909	4,507
Greater Scaup	89	553	0	0	5,202	10,507
Lesser Scaup	4,009	1,475	69	0	37,647	23,932
Ring-necked Duck	5,613	7,006	69	20	130,249	136,499
Goldeneyes	356	369	0	0	6,815	10,649
Bufflehead	15,056	12,261	69	240	70,999	88,196
Ruddy Duck	624	0	139	0	6,713	9,057
Long-tailed Duck	2,356	3,094	0	0	18,619	31,852
Eiders	0	0	0	0	3,898	6,612
Scoters	4,712	7,427	0	0	43,174	39,113
Hooded Merganser	2,227	3,227	69	20	28,393	38,323
Other Mergansers	445	922	0	100	10,640	15,710
Other Ducks	0	0	0	0	10,468	7,432
Total Duck Harvest	119,800±18%	126,800±20%	5,800±25%	4,700±26%	1,337,400±7%	1,599,900±12%
Total Active Duck Hunters ^a	17,000±14%	13,200±14%	1,000±20%	800±22%	174,500	176,900
Total Duck Hunter Days Afield ^a	88,700±16%	78,200±16%	5,800±21%	4,200±25%	950,900±7%	1,006,600±10%
Seasonal Duck Harvest Per Hunter ^a	6.6±23%	8.8±25%	6.1±32%	5.8±35%		
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Goose Species Composition						
Canada Goose	40,027	84,361	3,648	3,912	488,582	714,089
Snow Goose	459	944	0	0	20,177	24,171
Blue Goose	0	0	0	0	806	1,389
Ross' Goose	0	0	0	0	0	0
White-fronted Goose	0	0	0	0	0	0
Brant	0	2,187	0	0	6,066	14,242
Other Geese	0	0	0	0	0	128
Total Goose Harvest	40,500±18%	87,500±41%	3,600±26%	3,900±28%	515,600±8%	754,000±9%
Total Active Goose Hunters ^b	11,300±16%	17,500±21% ^d	1,000±22%	900±23%	130,600	148,800
Total Goose Hunter Days Afield ^b	60,800±26%	98,100±31%	5,100±27%	5,300±26%	600,300±7%	736,200±8%
Seasonal Goose Harvest Per Hunter ^b	3.6±24%	4.9±46%	3.8±34%	4.3±36%		
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Active Waterfowl Hunters ^c	21,500±12%	15,000±14% ^d	1,100±20%	900±22%	220,500	227,300
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Sample Sizes						
DuckWings	1,277	1,295	84	237	12,995	15,135
GooseTails	355	284	90	108	4,707	5,187

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2015 and 2016 hunting seasons.

Duck Species Composition	Alabama		Arkansas		Illinois	
	2015	2016	2015	2016	2015	2016
Mallard	16,377	14,583	501,555	620,654	137,339	139,469
Domestic Mallard	218	0	0	0	317	0
Black Duck	0	0	257	0	634	1,643
Mallard x Black Hybrid	218	185	0	261	159	205
Mottled Duck	0	0	0	0	0	0
Gadwall	26,858	26,213	159,317	171,071	22,837	27,113
Wigeon	437	738	9,492	21,384	4,123	2,876
Green-winged Teal	2,184	4,615	125,966	163,248	21,251	23,621
Blue-winged/Cinnamon Teal	6,551	0	15,136	3,651	13,480	6,984
Northern Shoveler	1,965	1,846	49,514	50,070	4,441	14,173
Northern Pintail	218	554	17,189	14,343	4,282	7,189
Wood Duck	32,972	25,106	39,765	68,324	31,084	42,108
Redhead	2,839	369	2,052	1,043	1,903	2,876
Canvasback	655	1,477	513	4,172	3,330	8,011
Greater Scaup	655	0	257	522	159	1,849
Lesser Scaup	3,275	185	4,874	1,825	3,648	9,654
Ring-necked Duck	6,987	9,968	10,005	12,257	6,978	14,378
Goldeneyes	873	923	257	0	2,062	1,643
Bufflehead	2,184	2,400	4,361	1,043	1,744	1,849
Ruddy Duck	0	185	513	0	159	822
Long-tailed Duck	0	0	0	0	0	205
Eiders	0	0	0	0	0	0
Scoters	0	0	0	0	0	411
Hooded Merganser	1,310	5,169	4,361	5,737	3,013	2,876
Other Mergansers	0	369	0	0	159	822
Other Ducks	0	0	0	0	0	205
Total Duck Harvest	106,800±20%	94,900±43%	945,400±12%	1,139,600±13%	263,100±19%	311,000±18%
Total Active Duck Hunters ^a	11,900±19%	9,400±26%	48,600±9%	53,900±10%	24,300±13%	27,100±12%
Total Duck Hunter Days Afield ^a	60,900±18%	48,300±40%	390,300±11%	423,100±12%	195,400±18%	213,600±15%
Seasonal Duck Harvest Per Hunter ^a	9.0±28%	10.1±50%	19.4±15%	21.1±17%	10.8±23%	11.5±22%
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Goose Species Composition						
Canada Goose	12,452	6,199	7,039	6,291	73,509	96,641
Snow Goose	0	0	27,374	39,321	5,691	6,343
Blue Goose	0	0	7,821	18,874	4,980	4,104
Ross' Goose	0	0	1,564	4,194	0	3,358
White-fronted Goose	0	0	43,017	70,777	5,928	2,985
Brant	0	0	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	12,500±56%	6,200±62%	86,800±20%	139,500±26%	90,100±27%	113,400±25%
Total Active Goose Hunters ^b	4,100±39%	3,200±51%	19,800±12%	20,800±14%	21,700±15%	22,600±13%
Total Goose Hunter Days Afield ^b	18,700±52%	24,200±76%	110,600±20%	132,100±20%	160,700±24%	161,300±16%
Seasonal Goose Harvest Per Hunter ^b	3.0±69%	1.9±81%	4.4±23%	6.7±29%	4.1±31%	5.0±29%
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Active Waterfowl Hunters ^c	12,100±19%	9,500±25%	49,200±9%	55,200±10%	29,800±12%	31,900±11%
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Sample Sizes						
DuckWings	489	514	3,685	4,370	1,659	1,514
GooseTails	21	33	222	266	380	304

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2015 and 2016 hunting seasons.

Duck Species Composition	Indiana		Iowa		Kentucky	
	2015	2016	2015	2016	2015	2016
Mallard	35,886	47,856	48,850	51,319	67,299	57,855
Domestic Mallard	0	277	0	0	0	0
Black Duck	1,066	1,106	477	0	1,052	3,945
Mallard x Black Hybrid	0	0	0	0	0	263
Mottled Duck	0	0	0	0	0	0
Gadwall	5,152	9,405	9,547	11,601	19,278	22,353
Wigeon	711	1,660	1,273	2,163	5,959	3,156
Green-winged Teal	4,619	3,596	16,071	23,202	6,309	5,522
Blue-winged/Cinnamon Teal	13,679	0	47,100	18,286	5,959	263
Northern Shoveler	2,487	3,319	3,023	3,343	3,505	4,997
Northern Pintail	355	277	4,615	3,933	2,804	0
Wood Duck	8,527	9,129	29,915	11,601	8,062	7,100
Redhead	178	1,383	955	1,770	0	0
Canvasback	0	1,660	636	2,753	701	263
Greater Scaup	178	830	318	0	0	789
Lesser Scaup	178	553	1,114	2,163	1,753	4,997
Ring-necked Duck	355	4,979	3,023	3,539	2,103	4,471
Goldeneyes	355	553	477	1,966	701	7,100
Bufflehead	1,066	0	0	197	1,753	1,315
Ruddy Duck	0	553	0	0	0	0
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	0	0	0	263
Hooded Merganser	533	553	159	197	2,103	2,630
Other Mergansers	0	0	318	393	0	789
Other Ducks	0	0	0	197	0	0
Total Duck Harvest	75,300±18%	87,700±24%	167,900±23%	138,600±19%	129,300±15%	128,100±14%
Total Active Duck Hunters ^a	8,700±12%	10,000±15%	14,600±17%	13,500±18%	9,900±17%	9,700±17%
Total Duck Hunter Days Afield ^a	58,900±15%	73,400±17%	119,800±20%	105,400±16%	85,200±17%	71,700±12%
Seasonal Duck Harvest Per Hunter ^a	8.7±22%	8.8±28%	11.5±29%	10.3±26%	13.0±23%	13.2±22%
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Goose Species Composition						
Canada Goose	37,068	55,571	53,661	56,895	19,453	15,946
Snow Goose	0	1,010	0	590	2,103	0
Blue Goose	0	1,010	0	590	0	0
Ross' Goose	0	0	0	884	1,577	664
White-fronted Goose	250	4,042	1,184	1,474	5,783	10,630
Brant	0	0	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	37,300±20%	61,600±23%	54,800±33%	60,400±26%	28,900±15%	27,200±15%
Total Active Goose Hunters ^b	7,800±13%	9,300±13%	13,600±19%	11,400±20%	8,800±11%	7,800±11%
Total Goose Hunter Days Afield ^b	49,400±17%	83,300±20%	85,300±24%	100,200±25%	70,600±15%	56,000±16%
Seasonal Goose Harvest Per Hunter ^b	4.8±24%	6.6±26%	4.0±38%	5.3±33%	3.3±18%	3.5±19%
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Active Waterfowl Hunters ^c	10,300±11%	11,000±13%	16,600±17%	15,000±17%	10,600±17%	10,800±17%
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Sample Sizes						
DuckWings	424	317	1,055	705	369	487
GooseTails	149	122	139	205	55	41

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2015 and 2016 hunting seasons.

Duck Species Composition	Louisiana		Michigan		Minnesota	
	2015	2016	2015	2016	2015	2016
Mallard	38,490	70,773	126,562	145,639	136,645	136,016
Domestic Mallard	0	414	0	0	0	0
Black Duck	154	0	5,386	9,032	0	0
Mallard x Black Hybrid	0	0	598	282	343	0
Mottled Duck	13,702	10,899	0	0	0	0
Gadwall	161,810	206,801	4,787	6,774	17,510	8,198
Wigeon	12,009	16,279	2,094	6,209	8,927	13,788
Green-winged Teal	143,951	203,352	21,542	19,193	41,199	37,637
Blue-winged/Cinnamon Teal	271,582	102,090	4,787	2,540	76,562	73,039
Northern Shoveler	34,948	48,286	1,496	3,669	8,240	6,335
Northern Pintail	18,629	27,316	2,094	5,363	8,240	9,316
Wood Duck	40,953	84,017	56,848	65,199	130,465	115,520
Redhead	17,243	8,416	23,338	18,628	16,480	13,788
Canvasback	5,850	11,589	898	1,976	12,703	7,080
Greater Scaup	2,001	414	6,283	9,032	2,060	373
Lesser Scaup	51,268	11,313	8,677	10,725	13,046	7,080
Ring-necked Duck	25,711	42,491	17,054	13,830	64,546	62,232
Goldeneyes	154	138	4,488	2,822	3,777	4,099
Bufflehead	1,694	966	14,362	20,040	23,690	17,887
Ruddy Duck	616	1,242	0	11,008	1,030	0
Long-tailed Duck	0	0	7,480	847	343	0
Eiders	0	0	0	0	0	0
Scoters	0	138	2,094	2,822	0	0
Hooded Merganser	2,309	8,278	5,086	3,105	7,210	8,571
Other Mergansers	308	276	1,496	2,540	343	0
Other Ducks	2,925	1,518	0	0	0	0
Total Duck Harvest	846,300±23%	857,000±20%	317,500±15%	361,300±23%	573,400±13%	521,000±14%
Total Active Duck Hunters ^a	47,000±11%	49,900±12%	36,400±11%	38,200±15%	57,100±10%	60,600±10%
Total Duck Hunter Days Afield ^a	308,300±18%	289,900±17%	219,400±14%	248,800±16%	365,600±15%	336,600±13%
Seasonal Duck Harvest Per Hunter ^a	18.0±25%	17.2±24%	8.7±19%	9.5±27%	10.0±16%	8.6±18%
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Goose Species Composition						
Canada Goose	0	2,393	159,634	167,751	142,237	175,759
Snow Goose	7,872	12,761	0	0	971	0
Blue Goose	3,499	13,558	0	0	0	0
Ross' Goose	0	2,393	0	0	0	0
White-fronted Goose	42,858	68,590	0	0	485	1,986
Brant	0	0	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	54,200±32%	99,700±55%	159,600±16%	167,800±19%	143,700±17%	177,700±25%
Total Active Goose Hunters ^b	13,300±17%	13,600±18%	37,200±11%	39,700±14%	43,700±11%	42,000±11%
Total Goose Hunter Days Afield ^b	65,200±25%	74,100±32%	227,500±14%	263,400±20%	283,600±17%	214,900±15%
Seasonal Goose Harvest Per Hunter ^b	4.1±36%	7.3±58%	4.3±20%	4.2±24%	3.3±21%	4.2±27%
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Active Waterfowl Hunters ^c	47,500±11%	50,800±12%	43,500±11%	43,600±14%	63,600±10%	65,900±10%
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Sample Sizes						
DuckWings	5,497	6,212	1,061	1,280	1,670	1,398
GooseTails	62	125	458	312	296	179

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2015 and 2016 hunting seasons.

Duck Species Composition	Mississippi		Missouri		Ohio	
	2015	2016	2015	2016	2015	2016
Mallard	61,979	66,995	234,387	230,665	63,484	56,661
Domestic Mallard	0	0	0	0	0	174
Black Duck	241	0	195	0	6,241	3,998
Mallard x Black Hybrid	0	0	195	0	178	174
Mottled Duck	0	0	0	0	0	0
Gadwall	47,268	44,829	44,191	71,752	7,133	6,257
Wigeon	3,376	2,491	5,840	5,979	1,427	1,564
Green-winged Teal	30,869	51,305	54,119	50,824	3,567	2,259
Blue-winged/Cinnamon Teal	3,859	0	14,211	16,558	2,853	695
Northern Shoveler	17,605	17,185	17,715	30,587	535	869
Northern Pintail	7,235	5,977	8,566	14,718	357	1,564
Wood Duck	29,422	20,173	11,096	17,248	9,095	10,255
Redhead	2,170	1,992	2,531	2,760	357	348
Canvasback	0	249	389	920	178	174
Greater Scaup	0	249	0	0	178	1,564
Lesser Scaup	5,064	498	4,283	920	3,745	1,912
Ring-necked Duck	5,064	4,483	8,760	6,439	0	1,043
Goldeneyes	0	249	0	460	1,070	1,043
Bufflehead	3,617	0	973	460	1,248	521
Ruddy Duck	1,206	996	0	0	178	695
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	0	0	178	174
Hooded Merganser	3,859	249	1,168	1,610	178	1,217
Other Mergansers	0	0	0	460	18,368	6,083
Other Ducks	0	0	0	0	0	0
Total Duck Harvest	222,800±25%	217,900±17%	408,600±21%	452,400±32%	120,500±26%	99,200±19%
Total Active Duck Hunters ^a	14,300±17%	13,700±19%	30,400±12%	30,800±13%	17,500±17%	13,200±19%
Total Duck Hunter Days Afield ^a	100,800±19%	88,200±20%	214,800±20%	220,200±22%	121,800±22%	96,200±19%
Seasonal Duck Harvest Per Hunter ^a	15.6±31%	15.9±26%	13.4±25%	14.7±35%	6.9±31%	7.5±27%
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Goose Species Composition						
Canada Goose	1,987	3,866	41,419	70,685	65,016	84,403
Snow Goose	2,981	3,663	1,349	3,029	0	0
Blue Goose	2,319	5,901	963	1,683	0	0
Ross' Goose	0	1,017	0	2,020	0	0
White-fronted Goose	7,287	14,650	1,926	1,010	0	265
Brant	0	0	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	14,600±39%	29,100±52%	45,700±26%	78,400±23%	65,000±21%	84,700±24%
Total Active Goose Hunters ^b	5,700±27%	7,000±26%	10,700±19%	16,500±16%	15,300±17%	13,100±19%
Total Goose Hunter Days Afield ^b	24,900±36%	36,700±36%	62,200±28%	85,400±20%	113,600±19%	110,600±20%
Seasonal Goose Harvest Per Hunter ^b	2.6±48%	4.2±59%	4.3±32%	4.8±28%	4.2±27%	6.5±31%
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Active Waterfowl Hunters ^c	14,300±17%	13,700±19%	32,600±12%	35,300±12%	21,200±15%	17,100±18%
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Sample Sizes						
DuckWings	924	875	2,099	1,967	676	571
GooseTails	44	143	237	233	165	319

Table 1B. Preliminary estimates of waterfowl harvest and hunter activity in the Mississippi Flyway during the 2015 and 2016 hunting seasons.

Duck Species Composition	Tennessee		Wisconsin		Flyway Total	
	2015	2016	2015	2016	2015	2016
Mallard	104,278	87,660	122,468	99,972	1,695,598	1,826,117
Domestic Mallard	0	321	552	0	1,087	1,185
Black Duck	0	4,174	552	2,058	16,254	25,956
Mallard x Black Hybrid	0	0	0	294	1,692	1,664
Mottled Duck	0	0	0	0	13,702	10,899
Gadwall	15,229	34,037	18,756	15,878	559,674	662,282
Wigeon	3,355	4,495	4,965	9,115	63,988	91,897
Green-winged Teal	18,326	15,413	39,444	23,817	529,417	627,605
Blue-winged/Cinnamon Teal	4,904	3,853	25,652	27,639	506,316	255,598
Northern Shoveler	5,420	3,853	4,413	5,293	155,309	193,823
Northern Pintail	13,164	4,495	7,999	6,469	95,746	101,514
Wood Duck	12,131	10,596	117,503	95,855	557,838	582,231
Redhead	1,549	2,248	14,619	4,705	86,213	60,324
Canvasback	1,807	321	3,034	4,705	30,696	45,348
Greater Scaup	0	1,605	12,964	17,348	25,053	34,574
Lesser Scaup	2,323	1,284	15,171	14,114	118,419	67,223
Ring-necked Duck	6,969	1,605	25,928	6,469	183,485	188,185
Goldeneyes	1,807	2,569	9,102	9,703	25,123	33,269
Bufflehead	2,581	3,211	13,791	5,881	73,064	55,768
Ruddy Duck	0	0	1,103	0	4,805	15,500
Long-tailed Duck	0	0	3,586	9,703	11,409	10,755
Eiders	0	0	0	0	0	0
Scoters	0	0	827	2,352	3,100	6,160
Hooded Merganser	2,323	6,743	4,137	3,234	37,751	50,167
Other Mergansers	258	0	2,758	882	24,008	12,614
Other Ducks	0	0	0	0	2,925	1,920
Total Duck Harvest	196,400±61%	188,500±39%	449,300±14%	365,500±12%	4,822,700±6%	4,962,600±6%
Total Active Duck Hunters ^a	7,900±41%	11,600±31%	57,500±12%	55,000±14%	386,100	396,700
Total Duck Hunter Days Afield ^a	75,300±57%	85,600±29%	386,200±12%	346,100±14%	2,702,700±5%	2,647,200±5%
Seasonal Duck Harvest Per Hunter ^a	25.0±74%	16.3±50%	7.8±19%	6.6±18%		
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Goose Species Composition						
Canada Goose	18,501	8,002	99,587	96,382	731,564	846,784
Snow Goose	578	8,002	0	0	48,919	74,719
Blue Goose	1,156	0	0	0	20,738	45,721
Ross' Goose	0	0	0	0	3,142	14,531
White-fronted Goose	0	20,006	0	0	108,720	196,416
Brant	0	0	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	20,200±64%	36,000±49%	99,600±14%	96,400±20%	913,100±7%	1,178,200±9%
Total Active Goose Hunters ^b	6,000±52%	9,000±36%	42,300±9%	44,400±12%	250,200	260,400
Total Goose Hunter Days Afield ^b	32,800±82%	63,600±44%	323,100±14%	328,700±20%	1,628,200±6%	1,734,700±7%
Seasonal Goose Harvest Per Hunter ^b	3.4±82%	4.0±60%	2.4±16%	2.2±23%		
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Active Waterfowl Hunters ^c	8,000±40%	12,400±31%	67,000±11%	61,900±13%	426,200	434,200
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Sample Sizes						
DuckWings	761	587	1,629	1,243	21,998	22,040
GooseTails	35	9	307	205	2,570	2,496

Table 1C. Preliminary estimates of waterfowl harvest and hunter activity in the Central Flyway during the 2015 and 2016 hunting seasons.

Duck Species Composition	Colorado		Kansas		Nebraska	
	2015	2016	2015	2016	2015	2016
Mallard	51,881	49,905	112,358	95,986	72,381	78,575
Domestic Mallard	0	0	151	0	0	0
Black Duck	0	0	0	0	0	0
Mallard x Black Hybrid	0	0	0	0	0	0
Mottled Duck	0	0	0	0	0	0
Gadwall	13,977	9,173	31,068	13,981	8,699	8,446
Wigeon	9,476	6,374	9,803	3,760	5,155	7,088
Green-winged Teal	14,451	9,639	20,813	19,738	24,377	18,550
Blue-winged/Cinnamon Teal	4,264	4,198	39,816	27,609	44,674	14,177
Northern Shoveler	4,027	311	4,524	3,290	1,503	2,262
Northern Pintail	2,132	777	6,033	5,169	2,148	2,111
Wood Duck	2,369	777	1,508	1,645	4,296	3,167
Redhead	3,553	777	4,675	2,115	1,074	1,357
Canvasback	474	311	452	705	107	452
Greater Scaup	0	0	0	0	0	0
Lesser Scaup	1,421	311	151	587	215	302
Ring-necked Duck	1,658	2,177	2,262	2,702	1,826	1,961
Goldeneyes	948	1,555	905	352	215	754
Bufflehead	711	0	603	117	0	603
Ruddy Duck	237	466	452	117	0	0
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	0	0	0	0
Hooded Merganser	237	155	452	1,175	322	0
Other Mergansers	0	0	0	117	0	0
Other Ducks	0	0	151	0	0	0
Total Duck Harvest	111,800±16%	86,900±18%	236,200±19%	179,200±22%	167,000±18%	139,800±21%
Total Active Duck Hunters ^a	11,000±13%	10,300±17%	19,600±15%	14,000±20%	12,100±14%	12,300±14%
Total Duck Hunter Days Afield ^a	67,900±19%	60,600±18%	98,300±15%	87,300±19%	87,800±15%	81,300±16%
Seasonal Duck Harvest Per Hunter ^a	10.2±21%	8.4±25%	12.1±24%	12.8±30%	13.8±23%	11.3±25%
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Goose Species Composition						
Canada Goose	79,010	99,221	71,175	96,863	89,315	115,248
Snow Goose	1,188	10,366	14,738	9,609	1,290	8,125
Blue Goose	0	2,116	3,595	3,075	0	3,009
Ross' Goose	0	2,539	3,595	1,538	0	1,204
White-fronted Goose	0	635	15,817	16,913	322	903
Brant	0	0	0	0	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	80,200±17%	114,900±19%	108,900±25%	128,000±23%	90,900±16%	128,500±18%
Total Active Goose Hunters ^b	12,200±14%	15,200±16%	14,100±18%	15,100±20%	10,800±12%	13,100±11%
Total Goose Hunter Days Afield ^b	58,100±16%	85,700±21%	58,200±18%	95,000±23%	90,300±17%	96,900±13%
Seasonal Goose Harvest Per Hunter ^b	6.6±21%	7.6±25%	7.7±30%	8.5±30%	8.4±20%	9.8±21%
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Active Waterfowl Hunters ^c	18,300±11%	19,600±14%	21,600±14%	16,400±19%	14,700±12%	17,500±11%
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Sample Sizes						
DuckWings	472	559	1,566	1,525	1,555	927
GooseTails	270	543	303	333	282	427

Table 1C. Preliminary estimates of waterfowl harvest and hunter activity in the Central Flyway during the 2015 and 2016 hunting seasons.

Duck Species Composition	New Mexico		North Dakota		Oklahoma	
	2015	2016	2015	2016	2015	2016
Mallard	12,907	7,513	189,295	163,808	118,530	131,487
Domestic Mallard	40	0	0	0	312	0
Black Duck	0	0	0	0	0	0
Mallard x Black Hybrid	0	0	0	0	0	0
Mottled Duck	81	0	0	0	0	0
Gadwall	971	1,337	70,999	70,781	47,943	39,748
Wigeon	3,358	2,487	14,221	21,056	11,712	11,908
Green-winged Teal	1,902	1,230	29,520	28,194	24,987	28,511
Blue-winged/Cinnamon Teal	607	107	70,676	38,067	22,019	9,560
Northern Shoveler	364	1,283	23,702	26,290	6,403	6,373
Northern Pintail	2,266	1,203	23,918	20,461	6,403	11,740
Wood Duck	809	241	1,616	2,260	7,027	3,857
Redhead	0	160	27,150	18,558	3,279	2,180
Canvasback	121	107	10,235	7,851	1,249	1,845
Greater Scaup	0	0	323	238	625	168
Lesser Scaup	0	80	19,501	19,509	781	1,006
Ring-necked Duck	324	134	9,589	8,446	6,090	7,715
Goldeneyes	364	0	754	357	1,562	335
Bufflehead	0	160	12,282	8,803	1,718	503
Ruddy Duck	0	27	2,801	1,428	0	0
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	108	0	0	0
Hooded Merganser	81	0	2,370	1,071	781	671
Other Mergansers	0	321	0	0	156	0
Other Ducks	40	27	215	119	0	0
Total Duck Harvest	24,200±46%	16,400±42%	509,300±8%	437,300±9%	261,600±29%	257,600±32%
Total Active Duck Hunters ^a	2,100±67%	4,200±61%	34,600±7%	33,500±8%	16,200±13%	19,400±18%
Total Duck Hunter Days Afield ^a	9,700±43%	11,000±48%	179,100±7%	159,500±8%	103,700±19%	123,700±29%
Seasonal Duck Harvest Per Hunter ^a	11.7±81%	3.9±74%	14.7±11%	13.1±12%	16.1±32%	13.3±37%
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Goose Species Composition						
Canada Goose	1,396	1,734	127,698	129,000	39,613	45,060
Snow Goose	888	228	16,470	25,923	501	1,492
Blue Goose	0	0	11,946	19,751	0	0
Ross' Goose	0	137	3,016	3,498	501	895
White-fronted Goose	0	0	3,248	1,440	1,504	1,790
Brant	0	0	0	206	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	2,300±100%	2,100±64%	162,400±13%	179,800±15%	42,100±23%	49,200±54%
Total Active Goose Hunters ^b	1,300±105%	1,800±74%	28,200±6%	25,000±7%	7,900±18%	7,700±35%
Total Goose Hunter Days Afield ^b	4,500±108%	6,100±86%	129,700±8%	125,200±12%	40,400±22%	50,400±52%
Seasonal Goose Harvest Per Hunter ^b	1.7±145%	1.2±98%	5.8±14%	7.2±17%	5.3±29%	6.4±64%
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Active Waterfowl Hunters ^c	2,200±64%	5,500±54%	39,600±6%	38,000±7%	16,600±13%	19,400±18%
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Sample Sizes						
DuckWings	599	614	4,727	3,676	1,675	1,536
GooseTails	18	46	1,400	874	84	165

Table 1C. Preliminary estimates of waterfowl harvest and hunter activity in the Central Flyway during the 2015 and 2016 hunting seasons.

Duck Species Composition	South Dakota		Texas		Wyoming	
	2015	2016	2015	2016	2015	2016
Mallard	63,712	48,402	65,403	118,862	21,477	16,245
Domestic Mallard	0	0	0	0	0	0
Black Duck	0	0	0	0	0	0
Mallard x Black Hybrid	0	0	0	0	0	0
Mottled Duck	0	0	6,187	4,372	0	0
Gadwall	20,293	9,539	137,215	195,296	1,658	1,509
Wigeon	4,845	5,676	42,203	67,690	2,239	2,013
Green-winged Teal	19,470	15,609	83,743	170,682	2,488	3,199
Blue-winged/Cinnamon Teal	27,514	17,422	180,080	264,767	705	1,294
Northern Shoveler	13,529	5,203	29,719	59,755	373	180
Northern Pintail	5,210	2,601	36,016	64,127	249	395
Wood Duck	3,017	3,547	18,450	68,985	207	539
Redhead	6,490	2,050	64,630	59,917	124	180
Canvasback	1,463	1,419	6,960	11,983	0	0
Greater Scaup	183	79	2,210	648	0	0
Lesser Scaup	4,662	4,336	14,915	13,279	166	0
Ring-necked Duck	3,565	2,286	29,829	42,266	539	144
Goldeneyes	274	158	994	1,619	663	611
Bufflehead	5,850	6,228	4,419	4,372	124	0
Ruddy Duck	366	236	2,099	2,267	0	0
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	0	162	41	0
Hooded Merganser	274	79	2,651	7,287	0	36
Other Mergansers	0	0	2,210	972	41	36
Other Ducks	0	0	3,756	3,077	0	0
Total Duck Harvest	180,700±14%	124,900±35%	733,700±12%	1,162,400±36%	31,100±16%	26,400±25%
Total Active Duck Hunters ^a	13,400±8%	10,600±21%	61,200±21%	79,900±20%	3,200±14%	3,100±20%
Total Duck Hunter Days Afield ^a	78,100±12%	48,100±25%	309,500±17%	385,800±29%	15,900±15%	13,100±19%
Seasonal Duck Harvest Per Hunter ^a	13.5±16%	11.7±41%	12.0±24%	14.5±41%	9.7±22%	8.5±32%
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Goose Species Composition						
Canada Goose	64,719	70,156	13,786	28,793	18,390	25,018
Snow Goose	4,439	7,890	37,911	79,356	0	62
Blue Goose	2,570	5,331	7,878	18,259	0	0
Ross' Goose	701	853	4,923	19,663	0	0
White-fronted Goose	701	2,772	28,064	50,563	0	62
Brant	0	0	0	0	0	0
Other Geese	0	213	0	702	0	0
Total Goose Harvest	73,100±25%	87,200±26%	92,600±29%	197,300±26%	18,400±17%	25,100±18%
Total Active Goose Hunters ^b	9,900±10%	12,800±16%	29,300±21%	45,700±18%	3,200±13%	3,900±16%
Total Goose Hunter Days Afield ^b	61,000±18%	57,600±20%	93,300±35%	143,500±27%	15,900±16%	16,800±18%
Seasonal Goose Harvest Per Hunter ^b	7.4±26%	6.8±30%	3.2±36%	4.3±32%	5.7±21%	6.5±24%
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Active Waterfowl Hunters ^c	15,600±7%	16,300±18%	64,600±21%	83,900±20%	5,000±11%	6,200±10%
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Sample Sizes						
DuckWings	1,977	1,584	6,641	7,178	750	734
GooseTails	313	409	188	281	295	407

Table 1C. Preliminary estimates of waterfowl harvest and hunter activity in the Central Flyway during the 2015 and 2016 hunting seasons.

Duck Species Composition	Flyway Total	
	2015	2016
Mallard	707,945	710,783
Domestic Mallard	504	0
Black Duck	0	0
Mallard x Black Hybrid	0	0
Mottled Duck	6,268	4,372
Gadwall	332,823	349,809
Wigeon	103,012	128,050
Green-winged Teal	221,750	295,351
Blue-winged/Cinnamon Teal	390,355	377,200
Northern Shoveler	84,145	104,947
Northern Pintail	84,374	108,586
Wood Duck	39,299	85,019
Redhead	110,977	87,294
Canvasback	21,062	24,674
Greater Scaup	3,340	1,132
Lesser Scaup	41,811	39,410
Ring-necked Duck	55,682	67,829
Goldeneyes	6,679	5,742
Bufflehead	25,708	20,787
Ruddy Duck	5,955	4,542
Long-tailed Duck	0	0
Eiders	0	0
Scoters	149	162
Hooded Merganser	7,169	10,474
Other Mergansers	2,407	1,446
Other Ducks	4,163	3,223
Total Duck Harvest	2,255,600±6%	2,430,800±18%
Total Active Duck Hunters ^a	173,500	187,400
Total Duck Hunter Days Afield ^a	950,000±7%	970,500±12%
Seasonal Duck Harvest Per Hunter ^a		
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Goose Species Composition		
Canada Goose	505,101	611,093
Snow Goose	77,425	143,051
Blue Goose	25,989	51,541
Ross' Goose	12,736	30,326
White-fronted Goose	49,656	75,078
Brant	0	206
Other Geese	0	916
Total Goose Harvest	670,900±8%	912,200±9%
Total Active Goose Hunters ^b	116,900	140,300
Total Goose Hunter Days Afield ^b	551,500±8%	677,200±9%
Seasonal Goose Harvest Per Hunter ^b		
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Active Waterfowl Hunters ^c	198,100	222,800
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Sample Sizes		
DuckWings	19,962	18,333
GooseTails	3,153	3,485

Table 1D. Preliminary estimates of waterfowl harvest and hunter activity in the Pacific Flyway during the 2015 and 2016 hunting seasons.

Duck Species Composition	Arizona		California		Idaho	
	2015	2016	2015	2016	2015	2016
Mallard	3,416	6,113	119,301	143,603	116,831	187,753
Domestic Mallard	43	41	1,020	340	0	715
Black Duck	0	0	0	0	0	0
Mallard x Black Hybrid	0	0	0	0	0	0
Mottled Duck	0	0	0	0	0	0
Gadwall	1,067	2,148	83,443	71,207	11,306	13,942
Wigeon	3,074	2,189	221,438	159,577	13,086	22,164
Green-winged Teal	4,611	5,535	327,484	381,864	8,270	22,021
Blue-winged/Cinnamon Teal	1,195	1,611	19,204	33,649	0	429
Northern Shoveler	1,665	1,652	232,994	139,354	1,884	2,073
Northern Pintail	982	413	161,448	135,445	3,664	5,362
Wood Duck	43	124	7,987	11,896	1,570	4,075
Redhead	299	702	4,419	4,079	2,198	643
Canvasback	470	83	25,322	17,674	523	143
Greater Scaup	0	0	1,190	2,209	209	214
Lesser Scaup	213	289	15,635	13,426	105	286
Ring-necked Duck	2,049	2,933	21,413	14,275	3,141	2,288
Goldeneyes	256	785	149	6,458	8,166	3,789
Bufflehead	854	537	17,674	14,955	2,094	500
Ruddy Duck	1,025	785	4,758	1,699	0	429
Long-tailed Duck	0	0	0	0	105	0
Eiders	0	0	0	0	0	0
Scoters	43	0	40	591	0	71
Hooded Merganser	85	248	850	680	314	500
Other Mergansers	128	207	510	1,190	209	500
Other Ducks	85	454	3	170	0	71
Total Duck Harvest	21,600±27%	26,800±20%	1,266,300±22%	1,154,300±14%	173,700±18%	268,000±27%
Total Active Duck Hunters ^a	2,300±19%	3,900±20%	46,900±12%	47,100±13%	11,800±18%	15,500±17%
Total Duck Hunter Days Afield ^a	10,300±23%	17,400±21%	373,700±17%	370,800±12%	68,500±20%	93,100±26%
Seasonal Duck Harvest Per Hunter ^a	9.4±33%	6.9±28%	27.0±25%	24.5±19%	14.7±26%	17.3±31%
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Goose Species Composition						
Canada Goose	2,309	1,823	40,431	41,280	41,611	71,015
Snow Goose	0	911	51,947	56,979	1,491	315
Blue Goose	0	0	0	291	0	0
Ross' Goose	122	684	12,007	6,977	0	0
White-fronted Goose	0	0	62,484	34,885	994	551
Brant	0	0	2,238	4,786	0	0
Other Geese	0	0	0	0	0	0
Total Goose Harvest	2,400±46%	3,400±47%	169,100±16%	145,200±20%	44,100±27%	71,900±23%
Total Active Goose Hunters ^b	1,200±29%	2,300±28%	28,700±11%	30,900±12%	9,400±19%	11,200±17%
Total Goose Hunter Days Afield ^b	4,900±42%	8,300±36%	182,900±16%	194,000±14%	52,900±24%	63,900±24%
Seasonal Goose Harvest Per Hunter ^b	2.0±54%	1.5±55%	5.8±19%	4.5±24%	4.7±33%	6.4±29%
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Active Waterfowl Hunters ^c	2,300±19%	3,900±20%	49,100±12%	49,000±13%	14,400±17%	19,300±15%
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Sample Sizes						
DuckWings	506	650	7,517	6,792	1,659	3,748
GooseTails	20	15	755	579	355	914

Table 1D. Preliminary estimates of waterfowl harvest and hunter activity in the Pacific Flyway during the 2015 and 2016 hunting seasons.

Duck Species Composition	Montana		Nevada		Oregon	
	2015	2016	2015	2016	2015	2016
Mallard	143,050	105,776	9,390	13,155	105,464	119,827
Domestic Mallard	0	0	48	0	164	0
Black Duck	0	0	0	0	0	0
Mallard x Black Hybrid	0	0	0	0	0	0
Mottled Duck	0	0	0	0	0	0
Gadwall	4,774	6,571	5,152	4,096	6,458	9,725
Wigeon	6,842	9,135	2,119	3,173	36,778	49,385
Green-winged Teal	6,842	7,693	3,467	3,635	29,171	51,753
Blue-winged/Cinnamon Teal	1,432	3,045	144	808	328	0
Northern Shoveler	2,864	3,366	3,467	2,019	9,523	11,162
Northern Pintail	2,546	1,763	385	1,039	25,504	43,127
Wood Duck	1,591	962	241	0	7,772	6,089
Redhead	1,114	1,122	193	519	55	254
Canvasback	955	321	193	519	1,423	1,353
Greater Scaup	0	0	0	0	1,587	3,213
Lesser Scaup	159	1,282	337	0	4,214	2,537
Ring-necked Duck	796	1,603	722	808	4,871	6,089
Goldeneyes	8,115	3,846	0	288	155	2,621
Bufflehead	1,273	801	626	692	3,120	5,919
Ruddy Duck	0	160	482	1,269	985	254
Long-tailed Duck	0	0	0	0	0	0
Eiders	0	0	0	0	0	0
Scoters	0	0	0	0	13	191
Hooded Merganser	159	160	144	173	547	1,015
Other Mergansers	1,114	481	48	231	876	1,184
Other Ducks	0	0	0	0	55	0
Total Duck Harvest	183,600±26%	148,100±27%	27,200±22%	32,400±24%	239,100±15%	315,700±16%
Total Active Duck Hunters ^a	16,900±15%	12,300±13%	2,400±24%	2,700±25%	15,600±11%	18,700±12%
Total Duck Hunter Days Afield ^a	87,100±23%	68,200±26%	12,200±21%	13,900±24%	93,500±13%	123,200±16%
Seasonal Duck Harvest Per Hunter ^a	10.9±30%	12.1±30%	11.2±32%	12.2±35%	15.3±19%	16.9±20%
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Goose Species Composition						
Canada Goose	66,139	41,536	4,425	4,159	45,756	40,448
Snow Goose	5,134	387	52	221	2,029	9,406
Blue Goose	0	129	0	0	0	0
Ross' Goose	1,057	129	0	0	150	314
White-fronted Goose	1,057	0	0	44	4,057	6,271
Brant	0	0	0	0	0	215
Other Geese	0	0	0	0	0	0
Total Goose Harvest	73,400±25%	42,200±41%	4,500±51%	4,400±41%	52,000±16%	56,700±20%
Total Active Goose Hunters ^b	12,200±17%	8,100±16%	1,600±28%	1,600±32%	9,000±11%	10,500±13%
Total Goose Hunter Days Afield ^b	61,900±34%	36,300±22%	6,700±41%	8,600±39%	48,800±15%	52,100±22%
Seasonal Goose Harvest Per Hunter ^b	6.0±30%	5.2±44%	2.8±58%	2.7±53%	5.8±20%	5.4±24%
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Active Waterfowl Hunters ^c	22,700±12%	13,500±12%	2,800±23%	2,900±25%	17,300±10%	21,000±11%
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Sample Sizes						
DuckWings	1,154	924	564	562	4,391	3,740
GooseTails	486	327	86	100	693	544

Table 1D. Preliminary estimates of waterfowl harvest and hunter activity in the Pacific Flyway during the 2015 and 2016 hunting seasons.

Duck Species Composition	Utah		Washington		Flyway Total	
	2015	2016	2015	2016	2015	2016
Mallard	55,488	63,221	219,729	196,142	772,668	835,590
Domestic Mallard	336	392	109	0	1,720	1,488
Black Duck	0	0	0	0	0	0
Mallard x Black Hybrid	0	0	0	0	0	0
Mottled Duck	0	0	0	0	0	0
Gadwall	30,429	30,827	9,287	10,203	151,917	148,718
Wigeon	20,025	31,219	88,722	60,800	392,084	337,643
Green-winged Teal	33,338	12,670	34,636	51,847	447,820	537,018
Blue-winged/Cinnamon Teal	5,817	6,270	109	0	28,231	45,811
Northern Shoveler	13,201	5,878	15,843	9,370	281,442	174,875
Northern Pintail	18,459	14,891	33,653	26,652	246,641	228,693
Wood Duck	336	261	7,648	1,249	27,188	24,656
Redhead	2,461	3,396	546	2,707	11,285	13,422
Canvasback	2,461	2,874	1,202	3,540	32,548	26,506
Greater Scaup	112	0	2,622	12,077	5,720	17,714
Lesser Scaup	2,685	784	4,917	14,575	28,265	33,179
Ring-necked Duck	2,349	2,743	8,850	18,531	44,192	49,269
Goldeneyes	3,580	1,567	600	4,373	21,021	23,728
Bufflehead	559	653	12,347	9,578	38,547	33,637
Ruddy Duck	895	1,176	109	208	8,254	5,980
Long-tailed Duck	0	0	19	0	124	0
Eiders	0	0	0	0	0	0
Scoters	0	0	116	3,123	212	3,977
Hooded Merganser	224	131	3,387	833	5,711	3,740
Other Mergansers	224	653	546	1,666	3,655	6,111
Other Ducks	0	0	148	0	291	696
Total Duck Harvest	193,000±16%	179,600±23%	445,100±20%	427,500±19%	2,549,500±12%	2,552,500±8%
Total Active Duck Hunters ^a	14,100±15%	16,200±16%	23,200±11%	21,500±10%	133,300	137,800
Total Duck Hunter Days Afield ^a	81,300±17%	85,300±20%	155,700±16%	138,500±15%	882,200±9%	910,400±7%
Seasonal Duck Harvest Per Hunter ^a	13.7±22%	11.1±28%	19.1±23%	19.9±21%		
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Goose Species Composition						
Canada Goose	20,913	23,421	57,089	53,253	278,673	276,935
Snow Goose	143	0	4,471	11,486	65,267	79,705
Blue Goose	0	0	0	0	0	420
Ross' Goose	0	0	1,146	522	14,482	8,625
White-fronted Goose	0	0	573	1,044	69,165	42,795
Brant	0	0	249	1,221	2,487	6,222
Other Geese	0	0	0	0	0	0
Total Goose Harvest	21,100±23%	23,400±30%	63,500±13%	67,500±15%	430,100±9%	414,700±10%
Total Active Goose Hunters ^b	8,700±14%	9,200±15%	13,300±9%	11,300±10%	84,200	85,100
Total Goose Hunter Days Afield ^b	44,500±22%	49,400±28%	66,100±14%	50,900±15%	468,800±9%	463,500±8%
Seasonal Goose Harvest Per Hunter ^b	2.4±27%	2.5±33%	4.7±16%	5.9±18%		
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Active Waterfowl Hunters ^c	16,500±14%	18,000±14%	25,700±10%	24,600±9%	150,800	152,200
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Sample Sizes						
DuckWings	1,725	1,375	4,107	2,053	21,623	19,844
GooseTails	147	142	553	256	3,095	2,877

Table 1E. Preliminary estimates of waterfowl harvest and hunter activity in Alaska and the United States during the 2015 and 2016 hunting seasons.

Duck Species Composition	Alaska		United States Total	
	2015	2016	2015	2016
Mallard	6,990	33,144	3,433,315	3,719,146
Domestic Mallard	0	0	7,173	5,205
Black Duck	0	0	62,240	86,832
Mallard x Black Hybrid	0	0	3,918	3,478
Mottled Duck	0	0	29,581	23,747
Gadwall	122	467	1,103,441	1,253,437
Wigeon	3,617	8,403	592,721	621,336
Green-winged Teal	3,292	3,268	1,291,621	1,579,175
Blue-winged/Cinnamon Teal	0	0	1,013,886	741,867
Northern Shoveler	732	0	544,376	503,935
Northern Pintail	2,926	3,268	447,189	467,467
Wood Duck	0	0	941,564	1,080,090
Redhead	0	0	234,643	180,781
Canvasback	0	0	86,215	101,035
Greater Scaup	935	934	40,251	64,861
Lesser Scaup	163	0	226,304	163,745
Ring-necked Duck	122	0	413,730	441,783
Goldeneyes	975	2,801	60,614	76,189
Bufflehead	366	467	208,683	198,855
Ruddy Duck	0	0	25,727	35,079
Long-tailed Duck	274	985	30,427	43,592
Eiders	0	985	3,898	7,597
Scoters	4,931	985	51,567	50,396
Hooded Merganser	0	0	79,024	102,704
Other Mergansers	1,644	0	42,354	35,881
Other Ducks	548	5,907	18,395	19,177
Total Duck Harvest	27,600±40%	61,600±20%	10,992,900±4%	11,607,400±5%
Total Active Duck Hunters ^a	2,400±32%	5,300±11%	869,700	904,100
Total Duck Hunter Days Afield ^a	10,400±40%	22,600±18%	5,496,200±3%	5,557,400±4%
Seasonal Duck Harvest Per Hunter ^a	8.5±51%	9.9±22%		
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Goose Species Composition				
Canada Goose	5,258	5,920	2,009,178	2,454,821
Snow Goose	0	0	211,788	321,647
Blue Goose	0	0	47,532	99,070
Ross' Goose	0	0	30,359	53,482
White-fronted Goose	112	0	227,652	314,288
Brant	2,440	1,875	10,992	22,545
Other Geese	0	0	0	1,043
Total Goose Harvest	7,800±70%	7,800±36%	2,537,500±4%	3,266,900±5%
Total Active Goose Hunters ^b	1,100±49%	1,900±21%	583,100	636,600
Total Goose Hunter Days Afield ^b	4,200±53%	9,700±29%	3,253,100±4%	3,621,300±4%
Seasonal Goose Harvest Per Hunter ^b	4.9±85%	3.1±42%		
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Active Waterfowl Hunters ^c	3,100±27%	6,000±9%	998,600	1,042,500
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Sample Sizes				
DuckWings	525	122	77,103	75,474
GooseTails	89	4	13,614	14,049

^a Duck hunter statistics do not include sea duck hunter statistics for states with special sea duck seasons or sea duck permits: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, Virginia, California, Oregon, Washington, and Alaska. (Refer to Table 3.)

^b Goose hunter statistics do not include brant hunter statistics for coastal states with brant seasons: Connecticut, Delaware, Maryland, Massachusetts, New Jersey, New York, North Carolina, Rhode Island, Virginia, California, Oregon, Washington, and Alaska. (Refer to Table 4.)

^c Hunter number estimates at the flyway and national levels may be biased high because the HIP sample frames are state-specific; therefore hunters are counted twice if they hunt in more than one state. Variance inestimable.

^dAlthough the estimate of active goose hunters exceeded the estimate of total active waterfowl hunters, the confidence intervals of these estimates overlapped.

Table 2. Flyway-specific point estimates of duck and goose harvest in Colorado, Montana, New Mexico, and Wyoming during the 2015 and 2016 hunting seasons.

	2015		2016	
	Central Flyway	Pacific Flyway	Central Flyway	Pacific Flyway
Duck Harvest				
Colorado	91,900	19,900	77,600	9,300
Montana	36,300	147,300	26,000	122,100
New Mexico	22,800	1,400	15,000	1,400
Wyoming	19,000	12,100	18,800	7,600
Goose Harvest				
Colorado	68,900	11,300	108,700	6,100
Montana	41,800	31,600	24,800	17,400
New Mexico	2,300	3,300	2,100	0
Wyoming	15,100	77,600	24,500	600

Table 3. Preliminary estimates of sea duck harvest and hunter activity for states with special sea duck seasons or sea duck permits during the 2015 and 2016 hunting seasons.^a

	Sea Duck Harvest ^b		Active Sea Duck Hunters ^c		Sea Duck Hunter Days Afield		Seasonal Harvest Per Hunter	
	2015	2016	2015	2016	2015	2016	2015	2016
Connecticut	3,900 ± 80%	4,000 ± 76%	400 ± 53%	400 ± 56%	1,700 ± 66%	3,100 ± 72%	9.8 ± 96%	9.0 ± 94%
Delaware	1,200 ± 86%	2,500 ± 55%	200 ± 60%	300 ± 48%	1,200 ± 83%	1,400 ± 53%	5.1 ± 105%	7.2 ± 73%
Maine	1,500 ± 56%	3,600 ± 70%	500 ± 58%	600 ± 54%	900 ± 52%	1,500 ± 66%	3.1 ± 81%	5.9 ± 88%
Maryland	17,800 ± 23%	18,300 ± 27%	3,200 ± 18%	3,200 ± 19%	6,700 ± 22%	6,800 ± 25%	5.7 ± 30%	5.7 ± 33%
Massachusetts	4,300 ± 44%	8,700 ± 59%	700 ± 42%	1,200 ± 48%	2,400 ± 36%	3,300 ± 47%	6.3 ± 61%	7.2 ± 76%
New Hampshire	800 ± 61%	200 ± 98%	200 ± 60%	100 ± 76%	700 ± 64%	400 ± 87%	4.8 ± 85%	1.4 ± 124%
New Jersey	6,300 ± 41%	6,700 ± 48%	900 ± 33%	1,200 ± 37%	3,100 ± 51%	5,000 ± 57%	7.3 ± 52%	5.6 ± 60%
New York	7,000 ± 40%	11,300 ± 58%	1,600 ± 31%	1,400 ± 36%	6,100 ± 39%	7,800 ± 51%	4.3 ± 51%	7.8 ± 68%
Rhode Island	700 ± 76%	500 ± 54%	100 ± 42%	100 ± 47%	400 ± 50%	500 ± 56%	5.4 ± 87%	4.0 ± 72%
Virginia	7,100 ± 52%	10,500 ± 78%	1,300 ± 45%	1,800 ± 54%	3,200 ± 45%	8,200 ± 69%	5.5 ± 69%	5.7 ± 95%
Atlantic Flyway Total	50,600 ± 15%	66,300 ± 21%	9,000	10,600	26,300 ± 15%	38,000 ± 22%		
California	200 ± 100%	600 ± 82%	<50 ± 88%	100 ± 46%	200 ± 118%	300 ± 71%	7.3 ± 133%	6.4 ± 94%
Oregon	200 ± 75%	200 ± 54%	100 ± 41%	100 ± 41%	100 ± 57%	200 ± 62%	3.1 ± 85%	3.0 ± 68%
Washington	800 ± 39%	700 ± 55%	100 ± 22%	100 ± 24%	600 ± 34%	500 ± 44%	6.7 ± 44%	6.6 ± 60%
Pacific Flyway Total	1,100 ± 33%	1,500 ± 42%	200	300	900 ± 33%	900 ± 34%		
Alaska	7,400 ± 66%	8,900 ± 36%	1,400 ± 49%	1,400 ± 26%	4,700 ± 56%	4,600 ± 31%	5.2 ± 82%	6.2 ± 45%
United States Total	59,100 ± 16%	76,600 ± 18%	10,600	12,300	31,900 ± 15%	43,500 ± 19%		

^a Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

^b Sea ducks include long-tailed ducks, eiders, and scoters in the Atlantic Flyway; long-tailed ducks, scoters, and harlequin ducks in California and Oregon; long-tailed ducks, scoters, harlequin ducks, and goldeneyes in Washington; and long-tailed ducks, eiders, scoters, harlequin ducks, and mergansers in Alaska.

^c Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

Table 4. Preliminary estimates of brant harvest and hunter activity for states with special sea duck seasons or sea duck permits during the 2015 and 2016 hunting seasons. ^a

	Brant Harvest		Active Brant Hunters ^b		Brant Hunter Days Afield		Seasonal Harvest Per Hunter	
	2015	2016	2015	2016	2015	2016	2015	2016
Connecticut	100 ± 87%	300 ± 105%	100 ± 75%	200 ± 86%	500 ± 95%	500 ± 97%	1.0 ± 115%	1.6 ± 136%
Delaware	100 ± 116%	400 ± 62%	100 ± 75%	200 ± 54%	400 ± 109%	500 ± 54%	1.2 ± 138%	1.7 ± 82%
Maine	0	0	0	0	0	0	0	0
Maryland	<50 ± 191%	200 ± 109%	100 ± 147%	200 ± 78%	100 ± 163%	400 ± 84%	0.3 ± 241%	1.0 ± 134%
Massachusetts	200 ± 128%	1,000 ± 84%	300 ± 70%	600 ± 65%	1,000 ± 81%	1,400 ± 64%	0.8 ± 146%	1.5 ± 106%
New Hampshire	0	<50 ± 192%	<50 ± 158%	<50 ± 192%	<50 ± 158%	200 ± 192%	0	2.0 ± 271%
New Jersey	600 ± 41%	2,500 ± 34%	500 ± 34%	1,500 ± 29%	1,200 ± 45%	6,000 ± 42%	1.2 ± 54%	1.6 ± 45%
New York	1,900 ± 51%	5,300 ± 47%	1,100 ± 38%	1,100 ± 36%	3,400 ± 40%	6,500 ± 41%	1.8 ± 64%	4.7 ± 59%
North Carolina	2,200 ± 196%	1,300 ± 126%	500 ± 138%	1,300 ± 90%	3,400 ± 144%	2,700 ± 95%	4.5 ± 240%	0.9 ± 155%
Rhode Island	300 ± 79%	500 ± 56%	100 ± 85%	200 ± 62%	400 ± 60%	500 ± 44%	1.9 ± 116%	3.1 ± 84%
Virginia	0	2,200 ± 78%	100 ± 94%	800 ± 67%	200 ± 100%	2,500 ± 77%	0	2.7 ± 103%
Atlantic Flyway Total	5,500 ± 82%	13,800 ± 27%	2,900	6,300	10,500 ± 50%	21,300 ± 24%		
California	1,500 ± 84%	4,800 ± 79%	400 ± 80%	1,200 ± 62%	1,200 ± 63%	3,100 ± 67%	3.5 ± 116%	4.2 ± 100%
Oregon	0	200 ± 196%	<50 ± 196%	100 ± 139%	<50 ± 196%	200 ± 146%	0	2.0 ± 240%
Washington	200 ± 80%	1,200 ± 104%	200 ± 73%	400 ± 62%	300 ± 75%	800 ± 82%	1.2 ± 109%	3.0 ± 121%
Pacific Flyway Total	1,800 ± 73%	6,200 ± 64%	600	1,700	1,500 ± 52%	4,200 ± 54%		
Alaska	2,400 ± 72%	1,900 ± 48%	600 ± 73%	400 ± 41%	2,100 ± 63%	1,500 ± 44%	4.1 ± 102%	4.9 ± 63%
United States Total	9,700 ± 51%	21,900 ± 25%	4,100	8,300	14,100 ± 39%	27,000 ± 21%		

^a Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

^b Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

Table 5. Preliminary harvest estimates for special September teal and teal/wood duck seasons during the 2015 and 2016 hunting seasons.

State	Harvest										Number of	
	Green-winged Teal		Blue-winged Teal		Wood ducks		Other ducks		Total duck harvest		wings received	
	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016
September Teal Seasons												
Delaware	589	305	168	0	0	0	0	0	758	305	9	4
Georgia	0	0	19,120	3,892	0	0	0	0	19,120	3,892	80	16
Maryland	495	105	165	419	0	0	0	0	660	523	8	5
North Carolina	0	0	0	957	0	0	0	0	0	957	0	4
South Carolina	0	0	3,394	2,053	0	0	0	0	3,394	2,053	24	24
Virginia	178	0	267	369	0	0	0	92	445	461	5	5
Atlantic Flyway Total	1,263	409	23,115	7,689	0	0	0	92	24,378	8,191	126	58
Alabama	0	0	5,022	0	0	0	218	0	5,241	0	24	0
Arkansas	770	0	14,880	2,869	0	0	0	0	15,650	2,869	61	11
Illinois	793	205	12,529	6,368	0	0	0	0	13,322	6,573	84	32
Indiana	711	0	13,679	0	0	0	0	0	14,390	0	81	0
Iowa	1,750	787	31,983	393	0	197	0	0	33,734	1,376	212	7
Louisiana	2,001	0	158,885	26,488	0	0	154	0	161,040	26,488	1,046	192
Michigan	1,795	0	2,693	0	0	0	0	0	4,488	0	15	0
Mississippi	0	0	2,894	0	0	0	0	0	2,894	0	12	0
Missouri	1,557	690	13,043	13,339	0	0	0	0	14,601	14,028	75	61
Ohio	1,427	0	2,140	0	0	0	0	0	3,567	0	20	0
Wisconsin	2,207	0	11,861	1,470	0	0	0	0	14,067	1,470	51	5
Subtotal	13,011	1,682	269,609	50,926	0	197	372	0	282,992	52,805	1,681	308
Colorado	711	933	1,895	2,798	0	0	0	0	2,606	3,731	11	24
Kansas	3,620	3,172	28,504	22,910	0	0	0	0	32,124	26,082	213	222
Nebraska	4,296	1,508	30,928	11,311	107	0	215	0	35,546	12,819	331	85
New Mexico	202	80	566	0	0	0	0	0	769	80	19	3
Oklahoma	937	168	21,082	8,386	312	168	156	0	22,488	8,721	144	52
Texas	3,646	4,372	141,744	196,916	0	0	110	162	145,500	201,450	1,317	1,244
Subtotal	13,411	10,233	224,721	242,321	420	168	481	162	239,033	252,884	2,035	1,630
Total	27,684	12,324	517,445	300,936	420	364	854	254	546,402	313,879	3,842	1,996
September Teal/Wood Duck Seasons												
Florida	0	0	10,259	9,892	2,303	1,429	209	0	12,771	11,321	122	103
Kentucky	0	0	5,959	263	6,309	1,578	0	0	12,268	1,841	35	7
Tennessee	0	321	4,130	3,853	5,420	3,853	0	0	9,550	8,027	37	25
Total	0	321	20,347	14,008	14,033	6,860	209	0	34,589	21,189	194	135
U.S. Total	27,684	12,645	537,792	314,944	14,452	7,224	1,063	254	580,992	335,068	4,036	2,131

Table 6. Preliminary estimates of the number of Canada geese harvested during the special September, regular, and special late seasons during the 2015 and 2016 hunting seasons.

State / Flyway	September		Regular		Late		Total	
	2015	2016	2015	2016	2015	2016	2015	2016
Connecticut	900	1,600	4,700	10,800	0	0	5,600	12,500
Delaware	1,900	300	10,200	13,300	0	0	12,100	13,500
Florida	700	0	100	0	0	0	800	0
Georgia	19,200	12,600	37,400	49,300	0	0	56,500	61,800
Maine	2,900	2,700	4,200	8,700	0	0	7,200	11,400
Maryland	9,800	1,000	88,600	152,900	0	0	98,400	153,900
Massachusetts	2,500	1,000	7,200	10,400	100	0	9,800	11,400
New Hampshire	1,600	0	2,500	4,700	0	0	4,100	4,700
New Jersey	3,500	2,700	11,800	28,000	0	0	15,300	30,600
New York	32,000	29,800	63,400	116,600	0	0	95,400	146,400
North Carolina	9,000	0	27,000	51,800	0	0	36,000	51,800
Pennsylvania	21,300	6,000	52,800	94,100	0	0	74,000	100,100
Rhode Island	400	300	3,200	2,600	100	0	3,700	2,900
South Carolina	5,300	1,800	14,000	13,900	0	0	19,300	15,800
Vermont	3,400	2,100	3,300	6,700	0	0	6,700	8,800
Virginia	6,100	900	33,900	83,400	0	0	40,000	84,400
West Virginia	700	0	3,000	3,900	0	0	3,600	3,900
Atlantic Flyway Total	121,200	62,900	367,300	651,200	200	0	488,600	714,100
Alabama	4,200	a	8,300	6,200	0	0	12,500	6,200
Arkansas	2,700	a	4,300	6,300	0	0	7,000	6,300
Illinois	18,300	a	55,300	96,600	0	0	73,500	96,600
Indiana	10,800	a	25,500	55,600	800	0	37,100	55,600
Iowa	400	a	53,300	56,900	0	0	53,700	56,900
Kentucky	15,200	a	4,200	15,900	0	0	19,500	15,900
Louisiana	0	a	0	2,400	0	0	0	2,400
Michigan	47,100	a	109,400	167,800	3,100	0	159,600	167,800
Minnesota	110,700	a	31,600	175,800	0	0	142,200	175,800
Mississippi	0	a	2,000	3,900	0	0	2,000	3,900
Missouri	0	a	41,400	70,700	0	0	41,400	70,700
Ohio	7,900	a	57,100	84,400	0	0	65,000	84,400
Tennessee	16,800	a	1,700	8,000	0	0	18,500	8,000
Wisconsin	22,100	a	77,500	96,400	0	0	99,600	96,400
Mississippi Flyway Total	256,000	a	471,700	846,800	3,900	0	731,600	846,800
Colorado	0	0	67,700	93,100	0	0	67,700	93,100
Kansas	0	0	71,200	96,900	0	0	71,200	96,900
Montana	0	0	40,500	24,500	0	0	40,500	24,500
Nebraska	0	0	89,300	115,200	0	0	89,300	115,200
New Mexico	0	0	1,400	1,700	0	0	1,400	1,700
North Dakota	26,200	22,600	101,500	106,400	0	0	127,700	129,000
Oklahoma	5,000	3,900	34,600	41,200	0	0	39,600	45,100
South Dakota	20,300	15,800	44,400	54,400	0	0	64,700	70,200
Texas	0	0	13,800	28,800	0	0	13,800	28,800
Wyoming	0	0	15,100	24,400	0	0	15,100	24,400
Central Flyway Total	51,600	42,300	479,400	586,600	0	0	531,000	628,800
Arizona	0	0	2,300	1,800	0	0	2,300	1,800
California	0	0	40,400	41,300	0	0	40,400	41,300
Colorado	600	0	10,700	6,100	0	0	11,300	6,100
Idaho	1,600	2,000	40,000	69,000	0	0	41,600	71,000
Montana	0	0	25,700	17,000	0	0	25,700	17,000
Nevada	0	0	4,400	4,200	0	0	4,400	4,200
New Mexico	0	0	0	0	0	0	0	0
Oregon	4,700	5,000	41,100	35,400	0	0	45,800	40,400
Utah	0	0	20,900	23,400	0	0	20,900	23,400
Washington	3,000	7,300	54,100	45,900	0	0	57,100	53,300
Wyoming	600	200	2,700	400	0	0	3,300	600
Pacific Flyway Total	10,500	14,500	242,300	244,600	0	0	252,800	259,200
Alaska	0	0	5,300	5,900	0	0	5,300	5,900
United States Total	439,200	119,700	1,565,900	2,335,100	4,100	0	2,009,200	2,454,800

^a The September goose season in the Mississippi Flyway is considered to be part of the regular goose season.

Table 7. Waterfowl harvest estimates in Canada during the 2015 and 2016 hunting seasons (estimates courtesy of the Canadian Wildlife Service).

Duck Species Composition	Newfoundland		Prince Edward Isl.		Nova Scotia		New Brunswick		Quebec		Ontario		Manitoba	
	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016
Mallard	650	0	1,779	1,358	7,082	6,564	6,647	6,712	54,653	47,530	114,114	77,234	56,624	64,567
Black Duck	8,869	6,144	2,615	6,390	16,061	17,627	6,938	9,700	16,670	16,961	11,869	9,088	430	234
Gadwall	0	0	0	47	134	0	105	46	361	735	5,465	7,102	3,081	7,645
Wigeon	0	0	416	47	628	38	1,049	406	1,134	1,793	9,350	5,469	3,292	4,615
Green-winged Teal	1,336	2,270	2,129	1,010	5,168	1,281	4,466	3,452	14,278	15,462	17,376	9,168	7,094	8,620
Blue-winged/Cinnamon Teal	0	0	79	0	282	199	808	277	1,437	751	4,248	1,180	6,442	8,495
Northern Shoveler	0	0	79	0	0	0	678	328	596	828	1,228	752	1,964	3,432
Northern Pintail	0	430	333	0	355	287	303	162	2,435	2,780	3,171	2,861	7,928	7,469
Wood Duck	0	0	54	0	633	450	2,899	2,413	24,286	23,017	67,350	58,830	1,063	3,179
Redhead	0	0	0	0	0	0	0	0	149	226	14,627	5,550	4,503	5,831
Canvasback	0	0	0	0	0	0	0	0	0	0	1,634	3,826	13,443	1,585
Greater Scaup	0	0	0	0	71	0	237	34	2,015	1,518	5,426	6,065	414	0
Lesser Scaup	0	0	0	0	0	0	137	106	1,479	995	9,696	6,277	8,363	5,458
Ring-necked Duck	1983	2,741	733	0	253	200	971	1,599	2,881	3,435	18,050	10,332	2,843	2,645
Goldeneyes	298	879	0	0	0	49	1,028	1,270	1,577	1,312	10,109	3,827	840	1,278
Bufflehead	0	0	0	0	1,241	319	394	91	2,097	303	10,807	8,470	2,680	2,042
Ruddy Duck	0	0	0	0	0	0	0	0	0	0	1,221	2,409	46	595
Long-tailed Duck	73	0	0	0	259	650	0	0	112	220	1,802	745	0	0
Eiders	5,632	9,131	0	0	834	846	421	180	2,616	2,189	0	0	0	0
Scoters	337	0	0	0	1,482	592	169	182	2,488	3,407	348	120	0	0
Hooded Merganser	0	159	0	0	1093	328	241	276	2611	2,269	4,117	2,437	181	577
Other Mergansers	11,792	735	0	0	29	433	421	0	1609	1,411	3,225	1,109	101	0
Other Ducks	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Duck Harvest	30,970	22,489	8,217	8,852	35,832	29,863	27,911	27,234	135,484	127,142	314,333	222,851	121,332	128,267
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<u>Goose Species Composition</u>														
Canada Goose	2,358	2,891	11,377	12,622	9,381	12,762	10,457	15,900	120,628	108,405	213,267	188,339	89,460	89,060
Snow Goose	0	0	0	0	0	0	0	0	51,441	52,118	223	0	488	4,244
Blue Goose	0	0	0	0	0	0	0	0	225	287	68	0	522	7,594
Ross's Goose	0	0	0	0	0	0	0	0	0	0	0	0	0	5,357
White-fronted Goose	0	0	0	0	55	0	0	0	0	254	0	233	0	0
Brant	0	0	0	0	0	0	0	0	0	0	0	508	0	0
Total Goose Harvest	2,358	2,891	11,377	12,622	9,436	12,762	10,457	15,900	172,294	161,064	213,648	189,080	99,560	106,255
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Migratory Bird Permits Sold	15,109	14,695	1,704	1,681	5,096	5,109	5,566	5,686	31,265	30,902	59,975	58,105	12,386	11,721

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Table 7 (continued). Waterfowl harvest estimates in Canada during the 2015 and 2016 hunting seasons (estimates courtesy of the Canadian Wildlife Service).

Duck Species Composition	Saskatchewan		Alberta		British Columbia		Nunavut		Northwest Terr.		Yukon Territory		Canada Total	
	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016
Mallard	179,718	159,158	88,206	83,694	28,664	23,686	0	0	0	0	0	0	538,137	470,503
Black Duck	0	0	0	0	0	0	0	0	0	0	0	0	63,452	66,144
Gadwall	14,492	25,707	18,087	23,378	979	929	0	0	0	0	0	0	42,703	63,589
Wigeon	8,091	14,329	7,629	14,606	7,354	8,104	0	0	0	0	0	0	38,943	49,443
Green-winged Teal	9,477	21,295	2,588	4,186	1,524	2,293	0	0	0	0	0	0	65,436	69,037
Blue-winged/Cinnamon Teal	29,860	15,217	8,088	8,578	460	0	0	0	0	0	0	0	51,705	34,719
Northern Shoveler	7,456	13,360	6,035	6,693	546	981	0	0	0	0	0	0	18,582	26,374
Northern Pintail	11,790	11,869	10,678	7,920	2,528	2,492	0	0	0	0	0	0	39,521	36,270
Wood Duck	2,142	621	299	200	92	0	0	0	0	0	0	0	98,818	88,710
Redhead	2,407	3,144	1,546	2,271	218	0	0	0	0	0	0	0	23,450	17,022
Canvasback	1,094	2,527	3,085	1,203	1,205	0	0	0	0	0	0	0	20,461	9,141
Greater Scaup	0	0	0	0	0	0	0	0	0	0	0	0	8,163	7,617
Lesser Scaup	48	3,016	3,407	5,760	420	244	0	0	0	0	0	0	23,550	21,856
Ring-necked Duck	2,529	2,370	1,100	1,212	55	187	0	0	0	0	0	0	31,398	24,721
Goldeneyes	0	270	1,876	1,004	500	84	0	0	0	0	0	0	15,554	9,973
Bufflehead	4,785	1,525	2,613	1,892	84	809	0	0	0	0	0	0	24,701	15,451
Ruddy Duck	0	653	0	170	0	0	0	0	0	0	0	0	1,267	3,827
Long-tailed Duck	0	0	0	0	0	0	0	0	0	0	0	0	2,246	1,615
Eiders	0	0	0	0	0	0	0	0	0	0	0	0	9,503	12,346
Scoters	0	0	0	0	0	0	0	0	0	0	0	0	4,824	4,301
Hooded Merganser	2,333	0	1,004	1,397	0	0	0	0	0	0	0	0	11,580	7,699
Other Mergansers	0	0	0	0	88	0	0	0	0	0	0	0	17,265	3,728
Other Ducks	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Duck Harvest	276,222	275,061	156,241	162,164	44,717	40,163	0	0	0	0	0	0	1,151,259	1,044,086
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Goose Species Composition														
Canada Goose	177,475	201,289	120,607	121,081	12,272	11,739	0	0	0	0	0	0	776,462	764,088
Snow Goose	50,241	32,366	17,021	7,804	613	1,399	0	0	0	0	0	0	120,027	97,931
Blue Goose	18,100	17,739	5,054	1,741	149	393	0	0	0	0	0	0	24,118	27,754
Ross's Goose	19,302	14,803	2,059	3,552	0	0	0	0	0	0	0	0	21,361	23,712
White-fronted Goose	31,953	32,304	39,449	33,435	0	299	0	0	0	0	0	0	71,457	66,525
Brant	0	0	0	0	0	0	0	0	0	0	0	0	0	508
Total Goose Harvest	297,071	298,501	184,190	167,613	13,034	13,830	0	0	0	0	0	0	1,013,425	980,518
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Migratory Bird Permits Sold	21,099	20,756	25,096	25,394	7,558	7,076	63	69	341	329	301	286	186,201	181,908

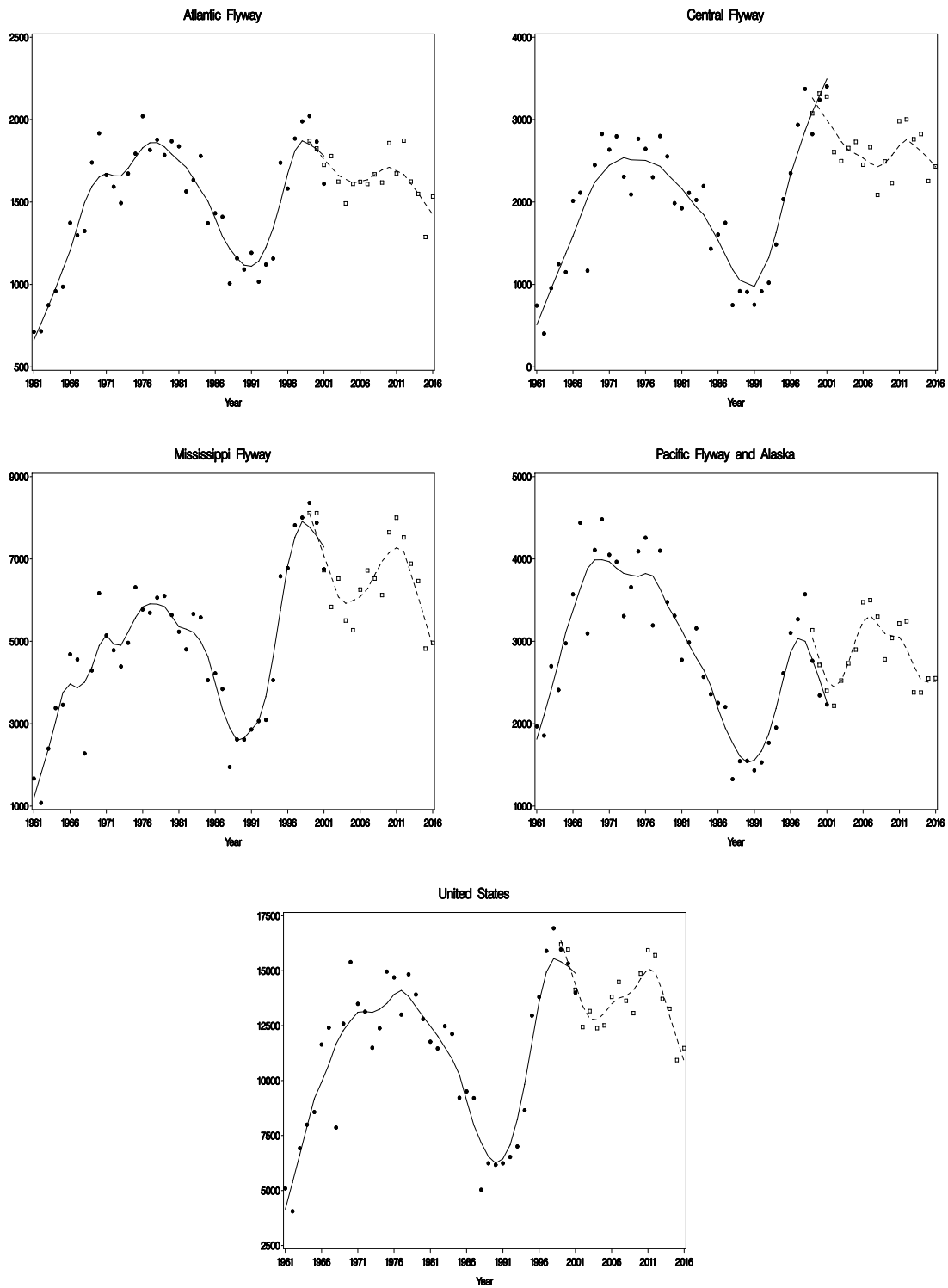


Figure 1. Number of ducks harvested (in thousands) by hunters in the the United States, 1961-2016. (Federal Duck Stamp Survey - circles and solid line; HIP survey squares and dashed line).

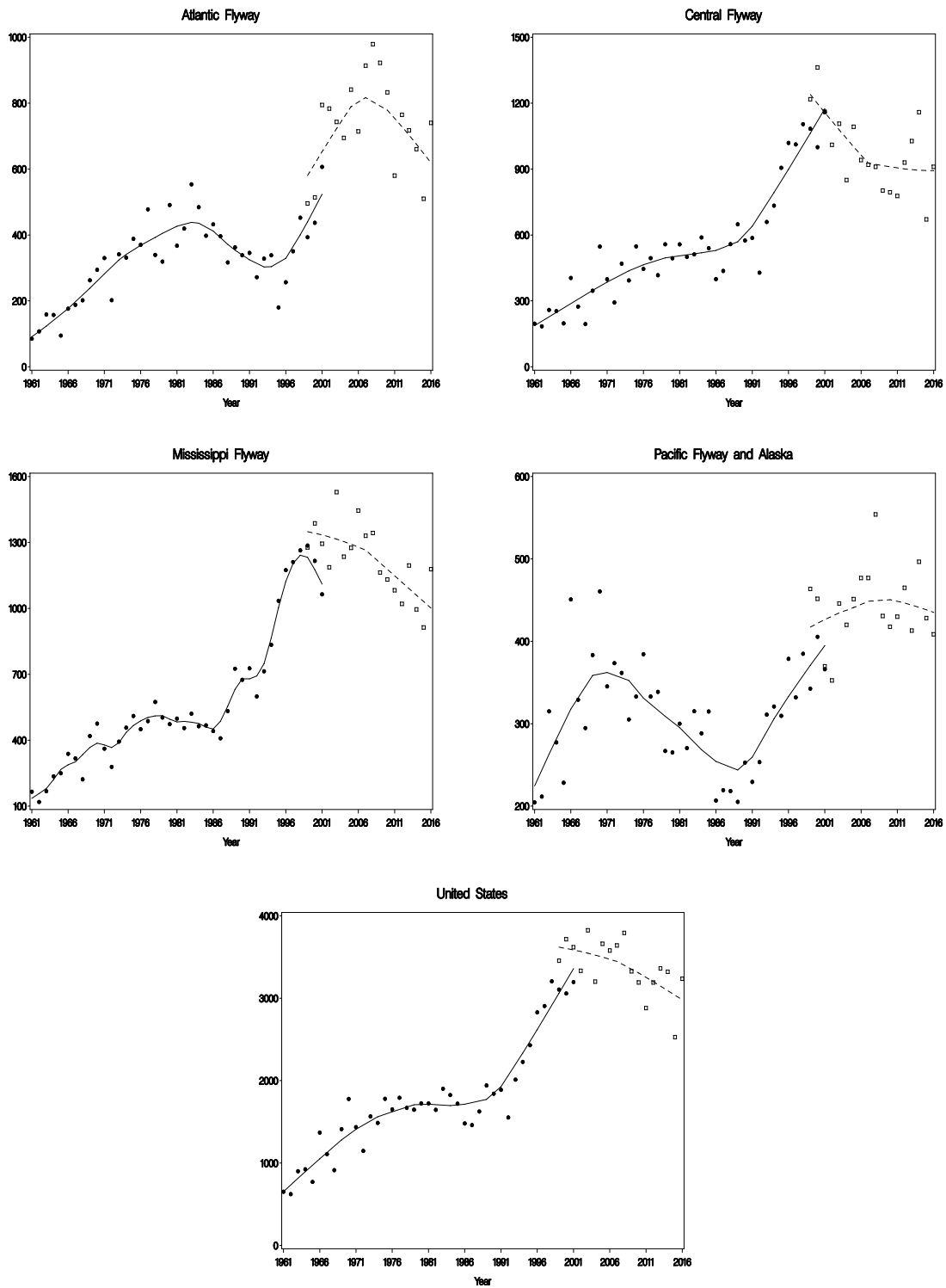


Figure 2. Number of geese harvested (in thousands) by hunters in the the United States, 1961-2016. (Federal Duck Stamp Survey - circles and solid line; HIP survey squares and dashed line).

Table 8. Preliminary weighted age ratios of mallards in state harvests during the 2012-2016 hunting seasons as determined from Waterfowl Parts Collection Survey.

State and Flyway	Immatures per adult ^a				
	2012	2013	2014	2015	2016
Connecticut	1.0	0.9	1.1	1.2	1.1
Delaware	1.2	2.0	1.8	1.5	1.1
Florida	---	---	---	---	---
Georgia	0.9	1.6	0.9	1.0	1.9
Maine	2.5	1.4	1.4	2.7	1.9
Maryland	1.4	1.1	1.2	1.4	1.4
Massachusetts	1.4	0.9	1.3	1.0	1.1
New Hampshire	1.9	2.3	1.6	2.2	1.5
New Jersey	0.8	0.6	0.9	0.8	0.7
New York	1.7	1.6	1.7	2.1	1.5
North Carolina	1.3	1.5	1.6	1.0	1.2
Pennsylvania	1.0	1.3	1.2	1.5	0.9
Rhode Island	---	1.2	0.9	0.9	1.2
South Carolina	3.7	2.3	0.9	2.2	2.4
Vermont	1.6	1.7	2.7	2.6	2.1
Virginia	0.8	1.1	1.0	0.9	0.8
West Virginia	1.2	0.7	0.6	0.4	0.8
Atlantic Flyway Total ^b	1.38	1.37	1.33	1.38	1.24
Alabama	1.6	1.0	1.1	1.1	1.4
Arkansas	1.0	0.8	1.1	0.7	0.7
Illinois	2.1	1.6	1.9	1.1	1.2
Indiana	1.5	1.7	1.8	1.4	0.9
Iowa	3.1	2.9	4.3	1.6	1.6
Kentucky	1.3	1.7	1.4	1.1	0.8
Louisiana	1.5	1.1	1.3	1.0	1.0
Michigan	2.0	1.4	2.0	2.8	2.1
Minnesota	4.5	3.5	5.4	4.4	4.2
Mississippi	1.3	0.6	0.9	0.7	0.9
Missouri	1.9	1.4	2.3	1.0	1.1
Ohio	1.6	1.2	1.5	1.7	1.4
Tennessee	1.5	0.9	1.3	0.9	0.7
Wisconsin	2.9	2.6	2.6	2.6	2.3
Mississippi Flyway Total ^b	1.68	1.31	1.66	1.19	1.09

Continued next page.

Table 8 (continued). Preliminary weighted age ratios of mallards in state harvests during the 2012-2016 hunting seasons as determined from Waterfowl Parts Collection Survey.

State and Flyway	Immatures per adult ^a				
	2012	2013	2014	2015	2016
Colorado	0.9	1.0	1.1	0.7	0.7
Kansas	0.7	0.9	1.1	0.5	0.6
Montana	1.1	1.6	1.3	0.8	0.6
Nebraska	1.0	1.1	1.5	1.2	0.8
New Mexico	1.3	1.2	1.9	1.7	1.1
North Dakota	3.2	2.6	3.2	2.2	1.7
Oklahoma	0.4	0.6	0.7	0.5	0.4
South Dakota	2.4	1.9	2.3	1.7	1.8
Texas	0.7	0.8	1.0	0.5	0.5
Wyoming	1.1	0.8	0.8	0.6	0.7
Central Flyway Total ^b	1.17	1.19	1.43	0.97	0.78
Arizona	1.7	1.3	1.6	1.4	1.5
California	1.5	1.4	1.3	1.5	2.2
Colorado	1.4	1.6	2.9	1.5	---
Idaho	1.0	1.0	1.1	0.9	1.0
Montana	1.0	1.2	0.9	1.2	0.6
Nevada	1.3	1.3	1.7	1.1	2.5
New Mexico	---	0.9	1.8	---	1.5
Oregon	1.5	1.3	1.5	1.5	1.7
Utah	1.5	1.2	1.7	1.3	1.4
Washington	1.4	1.6	1.2	1.1	1.1
Wyoming	2.1	4.6	3.9	2.5	2.0
Pacific Flyway Total ^b	1.35	1.25	1.25	1.21	1.25
Alaska	3.8	2.4	3.7	2.5	1.4
U.S. Total ^b	1.46	1.28	1.50	1.16	1.07

^a Ratio not shown if based on a sample of less than 20 wings.

^b In estimating Flyway and U.S. ratios, the ratio for each state was weighed in proportion to the estimated harvest in that state as determined from the Harvest Information Program Waterfowl Harvest Survey.

Table 9. Preliminary weighted age ratios of ducks harvested during the 2012-2016 hunting seasons, by species and flyway.

Species and Flyway	Immatures per adult ^{a, b}				
	2012	2013	2014	2015	2016
Mallard					
Atlantic	1.38	1.37	1.33	1.38	1.24
Mississippi	1.68	1.31	1.66	1.19	1.09
Central	1.17	1.19	1.43	0.97	0.78
Pacific	1.35	1.25	1.25	1.21	1.25
U.S. Total	1.46	1.28	1.50	1.16	1.07
Black duck					
Atlantic	1.44	1.43	1.07	1.17	1.40
Mississippi	1.56	2.00	1.30	3.94	1.61
U.S. Total	1.47	1.56	1.12	1.55	1.46
Mottled duck					
Atlantic	0.80	2.45	1.12	1.95	1.19
Mississippi	1.00	2.80	0.94	1.56	1.82
Central	2.54	---	2.71	2.21	2.38
U.S. Total	1.17	2.46	1.09	1.80	1.63
Gadwall					
Atlantic	1.13	1.48	1.68	1.09	1.28
Mississippi	1.21	1.25	1.32	1.03	1.02
Central	0.95	1.25	1.29	1.26	0.94
Pacific	0.84	1.13	1.32	1.00	0.97
U.S. Total	1.10	1.25	1.33	1.09	1.01
American wigeon					
Atlantic	0.99	1.03	0.68	0.93	0.50
Mississippi	1.38	1.27	1.70	2.37	1.71
Central	0.73	0.84	0.95	1.14	0.67
Pacific	1.21	1.52	1.58	1.27	0.95
U.S. Total	1.08	1.24	1.35	1.31	0.93
Green-winged teal					
Atlantic	2.05	1.77	1.68	1.66	1.70
Mississippi	1.60	1.80	1.48	1.63	1.58
Central	1.39	1.71	1.53	1.53	1.21
Pacific	0.93	1.35	1.30	1.27	0.90
U.S. Total	1.36	1.66	1.46	1.48	1.24
Blue-winged/Cinnamon teal					
Atlantic	1.25	0.98	0.85	1.18	0.93
Mississippi	1.29	1.49	1.16	1.28	1.26
Central	1.85	2.19	1.46	1.43	0.95
Pacific	1.14	1.68	1.19	0.74	0.83
U.S. Total	1.39	1.62	1.24	1.30	1.04

Continued next page.

Table 9 (continued). Preliminary weighted age ratios of ducks harvested during the 2012-2016 hunting seasons, by species and flyway.

Species and Flyway	Immatures per adult ^{a, b}				
	2012	2013	2014	2015	2016
Northern shoveler					
Atlantic	1.10	1.84	1.22	1.02	1.46
Mississippi	1.10	1.69	1.61	1.06	0.96
Central	1.14	2.38	1.83	1.44	0.92
Pacific	0.79	1.29	1.35	0.79	0.68
U.S. Total	0.97	1.67	1.54	0.95	0.87
Northern pintail					
Atlantic	0.94	1.18	1.08	0.68	1.35
Mississippi	0.89	1.71	1.11	0.88	1.29
Central	0.79	1.06	1.13	0.98	0.72
Pacific	0.71	0.98	1.10	0.70	0.77
U.S. Total	0.78	1.21	1.12	0.79	0.88
Wood duck					
Atlantic	1.09	1.45	1.33	1.32	1.37
Mississippi	1.25	1.45	2.04	1.74	1.29
Central	0.97	1.11	1.13	2.34	0.87
Pacific	1.36	1.23	1.96	2.18	1.70
U.S. Total	1.19	1.43	1.69	1.61	1.29
Redhead					
Atlantic	0.92	1.46	1.94	0.83	0.72
Mississippi	2.29	2.92	2.88	2.00	1.12
Central	1.51	2.25	3.19	1.33	0.68
Pacific	1.12	1.82	1.39	0.51	0.73
U.S. Total	1.62	2.32	2.80	1.38	0.81
Canvasback					
Atlantic	0.45	0.80	1.72	---	0.32
Mississippi	0.88	1.20	2.70	1.47	1.02
Central	0.73	1.19	2.10	1.48	0.74
Pacific	0.90	1.57	1.68	0.90	1.03
U.S. Total	0.83	1.24	2.17	1.18	0.90
Greater scaup					
Atlantic	0.79	1.85	1.15	1.69	2.71
Mississippi	0.98	1.09	1.53	2.21	3.31
Central	---	---	---	1.28	---
Pacific	1.06	1.52	1.21	1.31	0.92
U.S. Total	0.95	1.38	1.45	1.82	2.15

Continued next page.

Table 9 (continued). Preliminary weighted age ratios of ducks harvested during the 2012-2016 hunting seasons, by species and flyway.

Species and Flyway	Immatures per adult ^{a, b}				
	2012	2013	2014	2015	2016
Lesser scaup					
Atlantic	0.46	0.58	0.83	0.88	1.18
Mississippi	0.66	1.15	0.86	0.88	1.33
Central	1.09	2.22	0.78	0.83	1.12
Pacific	2.07	1.41	1.82	1.47	1.14
U.S. Total	0.74	1.14	0.91	0.93	1.21
Ring-necked duck					
Atlantic	1.53	1.86	1.59	2.27	1.33
Mississippi	1.97	2.21	2.40	2.09	2.46
Central	1.03	1.49	1.24	1.14	1.57
Pacific	2.17	1.61	2.14	2.17	1.27
U.S. Total	1.71	1.93	1.91	1.97	1.74
Common goldeneye					
Atlantic	0.57	0.74	0.88	0.70	0.72
Mississippi	1.06	1.26	1.41	1.44	1.00
Central	1.24	1.23	0.81	1.71	1.75
Pacific	1.11	0.91	0.64	1.20	1.43
U.S. Total	1.01	1.05	0.96	1.27	1.04
Bufflehead					
Atlantic	1.02	1.21	1.15	1.01	1.24
Mississippi	0.96	0.80	2.05	0.99	0.92
Central	0.81	0.62	0.76	1.18	0.81
Pacific	1.18	0.73	1.10	1.18	0.62
U.S. Total	1.01	0.90	1.33	1.06	0.98
Ruddy duck					
Atlantic	1.39	1.50	2.36	2.27	1.34
Mississippi	1.61	2.51	1.22	---	1.81
Central	1.40	2.57	2.07	0.92	3.24
Pacific	1.00	1.62	1.43	1.28	3.21
U.S. Total	1.37	1.84	1.64	1.56	1.95
Hooded merganser					
Atlantic	0.52	0.73	1.29	0.73	1.03
Mississippi	0.60	1.22	2.18	1.76	1.36
Central	0.66	0.65	1.59	0.86	0.61
Pacific	1.17	0.95	1.20	1.98	1.38
U.S. Total	0.61	0.92	1.74	1.20	1.12

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Table 9 (continued). Preliminary weighted age ratios of ducks harvested during the 2012-2016 hunting seasons, by species and flyway.

Species and Flyway	Immatures per adult ^{a, b}				
	2012	2013	2014	2015	2016
Common merganser					
Atlantic	1.39	1.28	1.33	1.88	1.59
Mississippi	---	2.26	1.31	---	---
Central	---	---	---	---	---
Pacific	0.39	0.90	1.06	0.63	0.79
U.S. Total	0.86	1.31	1.28	1.10	1.11
Red-breasted merganser					
Atlantic	0.56	1.38	2.76	0.92	1.28
Mississippi	2.08	1.92	1.69	0.41	1.09
U.S. Total	1.01	1.72	1.96	0.57	1.15
Long-tailed duck					
Atlantic	1.03	1.52	0.40	0.16	0.59
Mississippi	0.10	0.64	---	0.27	0.52
U.S. Total	0.71	1.04	0.61	0.20	0.61
Common eider					
Atlantic	0.38	0.18	0.29	0.08	0.39
U.S. Total	0.38	0.18	0.31	0.08	0.39
Black scoter					
Atlantic	0.67	1.27	0.30	0.72	0.82
U.S. Total	0.73	1.32	0.56	0.71	0.89
White-winged scoter					
Atlantic	---	2.07	0.40	0.37	2.26
Pacific	---	---	---	---	---
U.S. Total	3.73	2.17	2.11	0.92	2.16
Surf scoter					
Atlantic	3.68	0.47	0.31	0.47	0.47
Pacific	0.25	0.65	0.88	0.63	0.63
U.S. Total	2.52	0.55	0.50	0.56	0.64

^a Ratio not shown if based on a sample of less than 20 wings.

^b In estimating Flyway and U.S. ratios, the ratio for each state was weighed in proportion to the estimated harvest in that state as determined from the Harvest Information Program Waterfowl Harvest Survey.

Table 10. Preliminary weighted sex ratios of mallards in state harvests during the 2012-2016 hunting seasons as determined from Waterfowl Parts Collection Survey.

State and Flyway	Males per female ^a				
	2012	2013	2014	2015	2016
Connecticut	2.3	2.2	1.8	2.4	1.9
Delaware	1.8	1.8	1.6	2.0	1.3
Florida	---	---	---	---	---
Georgia	1.7	1.9	2.1	1.7	1.2
Maine	1.2	1.7	1.4	1.6	1.5
Maryland	2.7	2.5	1.6	2.5	1.8
Massachusetts	2.0	1.9	2.1	2.6	1.7
New Hampshire	1.7	1.5	1.4	1.1	1.4
New Jersey	1.7	1.6	1.6	2.1	2.9
New York	1.9	1.9	1.8	1.7	2.1
North Carolina	2.0	1.4	1.2	2.2	1.7
Pennsylvania	1.8	2.1	1.8	2.0	2.1
Rhode Island	---	2.2	1.2	2.0	2.3
South Carolina	1.2	2.1	2.5	1.7	1.5
Vermont	2.0	1.7	1.7	1.1	2.0
Virginia	1.9	1.6	1.6	2.0	1.9
West Virginia	1.5	2.1	1.9	2.5	2.5
Atlantic Flyway Total ^b	1.83	1.87	1.67	1.95	1.83
Alabama	0.9	2.9	1.7	1.9	1.6
Arkansas	2.3	2.6	2.2	2.8	2.9
Illinois	1.8	2.5	1.8	2.7	2.5
Indiana	2.5	2.0	2.3	2.7	2.7
Iowa	2.4	2.6	2.0	2.8	2.3
Kentucky	2.5	1.9	2.3	3.0	2.9
Louisiana	1.7	1.5	1.8	2.5	2.2
Michigan	2.1	2.5	1.4	1.5	1.4
Minnesota	1.8	1.4	1.3	1.5	1.2
Mississippi	2.3	3.0	3.3	4.3	2.7
Missouri	2.9	2.6	2.7	3.4	3.1
Ohio	2.3	3.0	2.8	2.5	2.4
Tennessee	2.8	2.2	2.3	2.6	2.6
Wisconsin	2.0	2.1	1.8	1.6	2.2
Mississippi Flyway Total ^b	2.16	2.26	2.04	2.47	2.38

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Table 10 (continued). Preliminary weighted sex ratios of mallards in state harvests during the 2012-2016 hunting seasons as determined from Waterfowl Parts Collection Survey.

State and Flyway	Males per female ^a				
	2012	2013	2014	2015	2016
Colorado	3.0	3.2	3.8	2.4	3.0
Kansas	4.2	4.7	5.5	5.3	6.6
Montana	3.2	4.9	3.7	5.2	7.3
Nebraska	3.2	4.3	4.2	4.9	5.3
New Mexico	6.0	3.8	2.1	3.1	2.2
North Dakota	2.3	2.2	2.3	2.5	2.4
Oklahoma	3.2	3.7	3.6	3.7	3.4
South Dakota	2.5	3.1	4.0	3.5	4.3
Texas	2.2	1.8	1.7	4.1	3.7
Wyoming	2.8	2.5	3.5	5.0	6.6
Central Flyway Total ^b	2.77	3.03	3.12	3.55	3.64
Arizona	1.5	1.6	1.7	1.7	1.2
California	2.2	2.5	2.5	1.9	2.1
Colorado	2.1	2.6	2.2	1.7	---
Idaho	3.1	2.9	2.9	2.9	2.7
Montana	1.9	2.7	2.8	3.4	4.2
Nevada	1.3	1.4	1.8	1.5	1.7
New Mexico	---	1.4	2.3	---	5.3
Oregon	2.0	2.3	2.4	2.8	2.3
Utah	2.1	2.1	1.7	2.3	2.6
Washington	2.0	1.9	2.2	2.7	2.4
Wyoming	1.6	2.1	1.5	2.0	1.3
Pacific Flyway Total ^b	2.22	2.38	2.39	2.60	2.50
Alaska	1.4	1.3	1.2	1.4	1.4
U.S. Total ^b	2.24	2.37	2.25	2.63	2.52

^a Ratio not shown if based on a sample of less than 20 wings.

^b In estimating Flyway and U.S. ratios, the ratio for each state was weighed in proportion to the estimated harvest in that state as determined from the Harvest Information Program Waterfowl Harvest Survey.

Table 11. Preliminary weighted sex ratios of ducks harvested during the 2012-2016 hunting seasons, by species and flyway.

Species and Flyway	Males per female ^{a,b}				
	2012	2013	2014	2015	2016
Mallard					
Atlantic	1.83	1.87	1.67	1.95	1.83
Mississippi	2.16	2.26	2.04	2.47	2.38
Central	2.77	3.03	3.12	3.55	3.64
Pacific	2.22	2.38	2.39	2.60	2.50
U.S. Total	2.24	2.37	2.25	2.63	2.52
Black duck					
Atlantic	1.05	1.01	1.10	1.11	1.05
Mississippi	1.11	1.32	1.00	1.21	0.59
U.S. Total	1.06	1.08	1.08	1.14	0.89
Mottled duck					
Atlantic	1.21	1.34	1.09	0.95	1.12
Mississippi	1.10	1.38	1.07	0.53	1.72
Central	1.71	---	0.63	0.99	1.70
U.S. Total	1.22	1.31	1.01	0.74	1.47
Gadwall					
Atlantic	1.33	1.90	2.17	1.61	2.23
Mississippi	1.67	1.47	1.68	1.87	1.76
Central	1.59	1.64	1.67	1.48	1.71
Pacific	1.48	1.66	1.78	1.62	1.63
U.S. Total	1.62	1.55	1.71	1.69	1.76
American wigeon					
Atlantic	1.39	1.88	2.43	1.96	2.10
Mississippi	1.63	1.42	1.19	1.41	1.68
Central	1.99	1.94	1.73	1.79	1.70
Pacific	1.48	1.54	1.57	1.52	1.66
U.S. Total	1.62	1.63	1.57	1.57	1.69
Green-winged teal					
Atlantic	1.28	1.21	1.39	1.55	1.35
Mississippi	1.69	1.66	1.89	1.78	1.90
Central	2.15	1.73	1.96	2.06	1.87
Pacific	1.84	1.68	1.84	1.85	1.76
U.S. Total	1.78	1.64	1.84	1.83	1.80
Blue-winged/Cinnamon teal					
Atlantic	1.18	1.51	1.66	1.15	1.71
Mississippi	1.46	1.68	1.79	1.39	1.06
Central	1.38	1.47	1.63	1.28	1.67
Pacific	1.47	1.26	1.22	1.20	1.83
U.S. Total	1.42	1.60	1.70	1.32	1.44

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Table 11 (continued). Preliminary weighted sex ratios of ducks harvested during the 2012-2016 hunting seasons, by species and flyway.

Species and Flyway	Males per female ^{a,b}				
	2012	2013	2014	2015	2016
Northern shoveler					
Atlantic	1.50	1.44	1.84	1.86	1.20
Mississippi	1.69	1.62	1.67	1.70	1.62
Central	1.48	1.30	1.74	1.50	1.50
Pacific	1.68	1.43	1.55	1.70	1.97
U.S. Total	1.64	1.47	1.65	1.67	1.67
Northern pintail					
Atlantic	1.13	2.36	2.02	1.87	1.55
Mississippi	2.35	2.19	2.12	2.35	2.16
Central	2.51	2.12	2.34	2.24	2.48
Pacific	2.46	2.47	2.45	2.93	3.09
U.S. Total	2.39	2.25	2.30	2.58	2.53
Wood duck					
Atlantic	1.96	1.91	1.91	1.97	1.96
Mississippi	1.83	1.93	1.81	1.72	1.91
Central	2.09	2.20	2.27	1.87	2.18
Pacific	1.88	1.58	2.09	1.64	2.06
U.S. Total	1.88	1.92	1.87	1.80	1.95
Redhead					
Atlantic	1.51	1.79	1.21	1.30	1.84
Mississippi	1.84	1.69	1.50	1.38	1.31
Central	1.50	1.62	1.61	1.94	1.52
Pacific	1.41	1.57	1.83	2.16	1.78
U.S. Total	1.60	1.66	1.54	1.64	1.49
Canvasback					
Atlantic	3.55	1.37	0.71	---	0.61
Mississippi	1.12	1.22	1.32	1.14	1.54
Central	1.40	1.42	1.49	1.19	1.05
Pacific	1.17	1.16	1.02	1.24	1.25
U.S. Total	1.24	1.25	1.25	1.19	1.27
Greater scaup					
Atlantic	1.15	1.41	0.92	0.77	1.12
Mississippi	0.89	0.94	0.97	1.97	1.16
Central	---	---	---	0.73	---
Pacific	1.33	1.98	1.30	2.14	1.34
U.S. Total	1.06	1.15	1.07	1.62	1.24

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Table 11 (continued). Preliminary weighted sex ratios of ducks harvested during the 2012-2016 hunting seasons, by species and flyway.

Species and Flyway	Males per female ^{a,b}				
	2012	2013	2014	2015	2016
Lesser scaup					
Atlantic	3.58	2.87	2.66	2.15	1.78
Mississippi	2.55	1.35	2.18	2.32	2.21
Central	2.11	1.84	1.88	1.79	1.26
Pacific	1.42	1.38	1.38	1.40	1.52
U.S. Total	2.49	1.70	2.05	2.04	1.72
Ring-necked duck					
Atlantic	1.55	1.65	1.35	1.18	1.40
Mississippi	1.83	1.64	1.58	1.86	2.16
Central	3.35	2.24	1.98	2.42	2.31
Pacific	1.88	1.56	1.76	1.47	1.74
U.S. Total	1.87	1.70	1.60	1.61	1.85
Common goldeneye					
Atlantic	1.94	2.24	0.88	0.87	1.32
Mississippi	1.18	0.73	1.27	1.05	1.23
Central	2.09	1.35	1.32	0.87	1.53
Pacific	1.71	1.88	2.13	2.20	1.14
U.S. Total	1.59	1.31	1.46	1.28	1.26
Bufflehead					
Atlantic	1.37	1.67	1.76	1.86	1.22
Mississippi	1.97	1.62	1.33	1.12	1.38
Central	1.23	2.25	1.42	1.25	1.25
Pacific	1.02	1.21	1.47	0.96	1.44
U.S. Total	1.41	1.60	1.51	1.31	1.31
Hooded merganser					
Atlantic	2.43	2.07	3.37	1.64	2.97
Mississippi	1.60	3.03	2.25	2.62	2.05
Central	5.42	1.24	2.44	3.16	2.14
Pacific	3.17	---	4.20	---	---
U.S. Total	2.10	2.20	2.63	2.17	2.37
Common merganser					
Atlantic	1.22	0.86	0.86	0.73	1.10
Mississippi	---	---	0.81	---	---
Central	---	---	---	---	---
Pacific	1.20	0.82	0.65	1.75	0.63
U.S. Total	1.27	0.81	0.76	0.65	0.82

^a Ratio not shown if based on a sample of less than 20 wings.

^b In estimating Flyway and U.S. ratios, the ratio for each state was weighed in proportion to the estimated harvest in that state as determined from the Harvest Information Program Waterfowl Harvest Survey.

Table 12. Preliminary weighted age ratios of geese harvested during the 2012-2016 hunting seasons, by species and flyway.

Species and Flyway	Immatures per adult ^{a, b}				
	2012	2013	2014	2015	2016
Canada goose					
Atlantic	0.46	0.47	0.36	0.41	0.44
Mississippi	0.40	0.39	0.37	0.47	0.42
Central	0.56	0.36	0.47	0.38	0.44
Pacific	0.45	0.60	0.59	0.47	0.71
U.S. Total	0.46	0.42	0.42	0.43	0.46
Snow goose					
Atlantic	0.33	0.50	1.32	0.77	0.58
Mississippi	0.22	0.99	0.45	0.31	0.38
Central	0.37	0.23	0.48	0.28	0.54
Pacific	0.74	0.35	0.49	0.78	0.77
U.S. Total	0.40	0.43	0.52	0.44	0.55
Blue goose					
Mississippi	0.36	0.64	0.27	0.20	0.39
Central	0.51	0.46	0.74	0.31	0.65
U.S. Total	0.46	0.56	0.53	0.27	0.51
Ross' goose					
Mississippi	---	---	---	---	0.88
Central	0.89	1.06	0.85	0.61	1.07
Pacific	0.15	0.36	0.32	0.69	0.77
U.S. Total	0.56	0.79	0.86	0.68	0.96
Greater white-fronted goose					
Mississippi	0.35	0.48	0.52	0.78	0.71
Central	0.70	0.76	0.67	0.69	0.39
Pacific	0.77	0.43	0.52	1.05	0.75
U.S. Total	0.56	0.53	0.58	0.83	0.62
Brant					
Atlantic	0.27	0.05	0.26	0.10	0.84
Pacific	0.39	0.12	0.53	0.26	0.55
U.S. Total	0.28	0.08	0.30	0.20	0.92

^a Ratio not shown if based on a sample of less than 20 wings.

^b In estimating Flyway and U.S. ratios, the ratio for each state was weighed in proportion to the estimated harvest in that state as determined from the Harvest Information Program Waterfowl Harvest Survey.

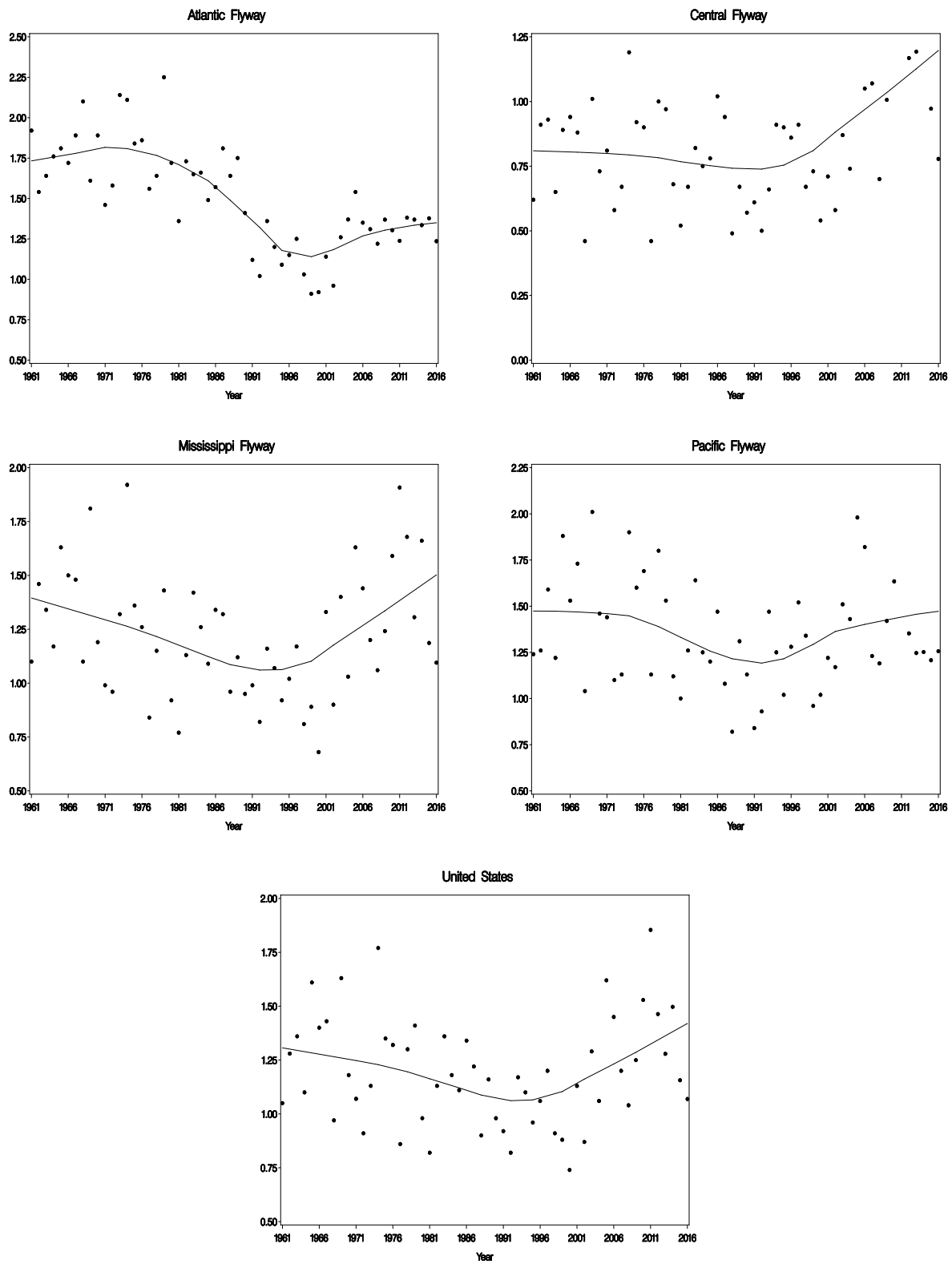


Figure 3. Age ratios of mallards harvested in the United States, 1961-2016.

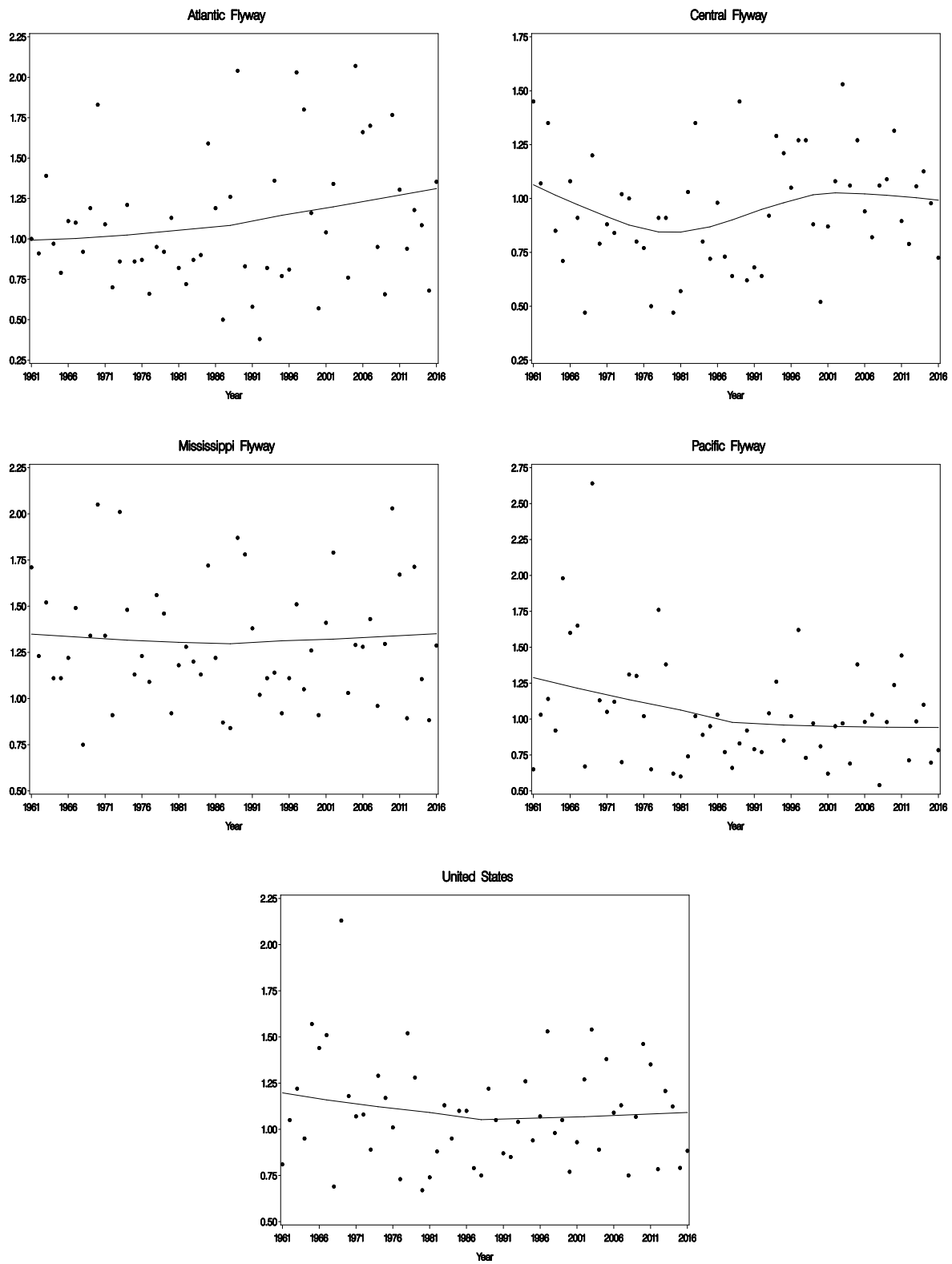


Figure 4. Age ratios of northern pintails harvested in the United States, 1961-2016.

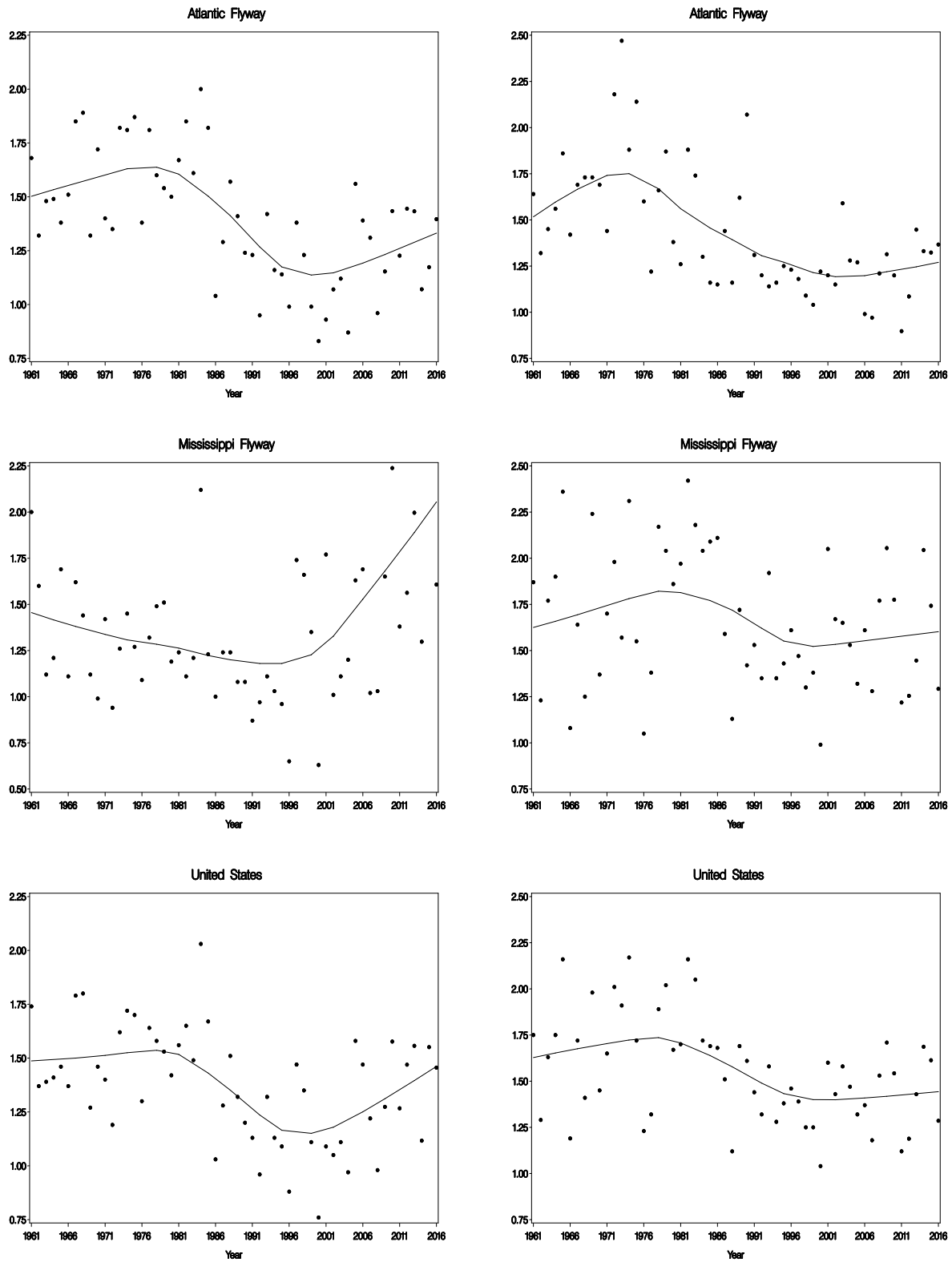


Figure 5. Age ratios of American black ducks (left column) and wood ducks (right column) harvested in the United States, 1961-2016.

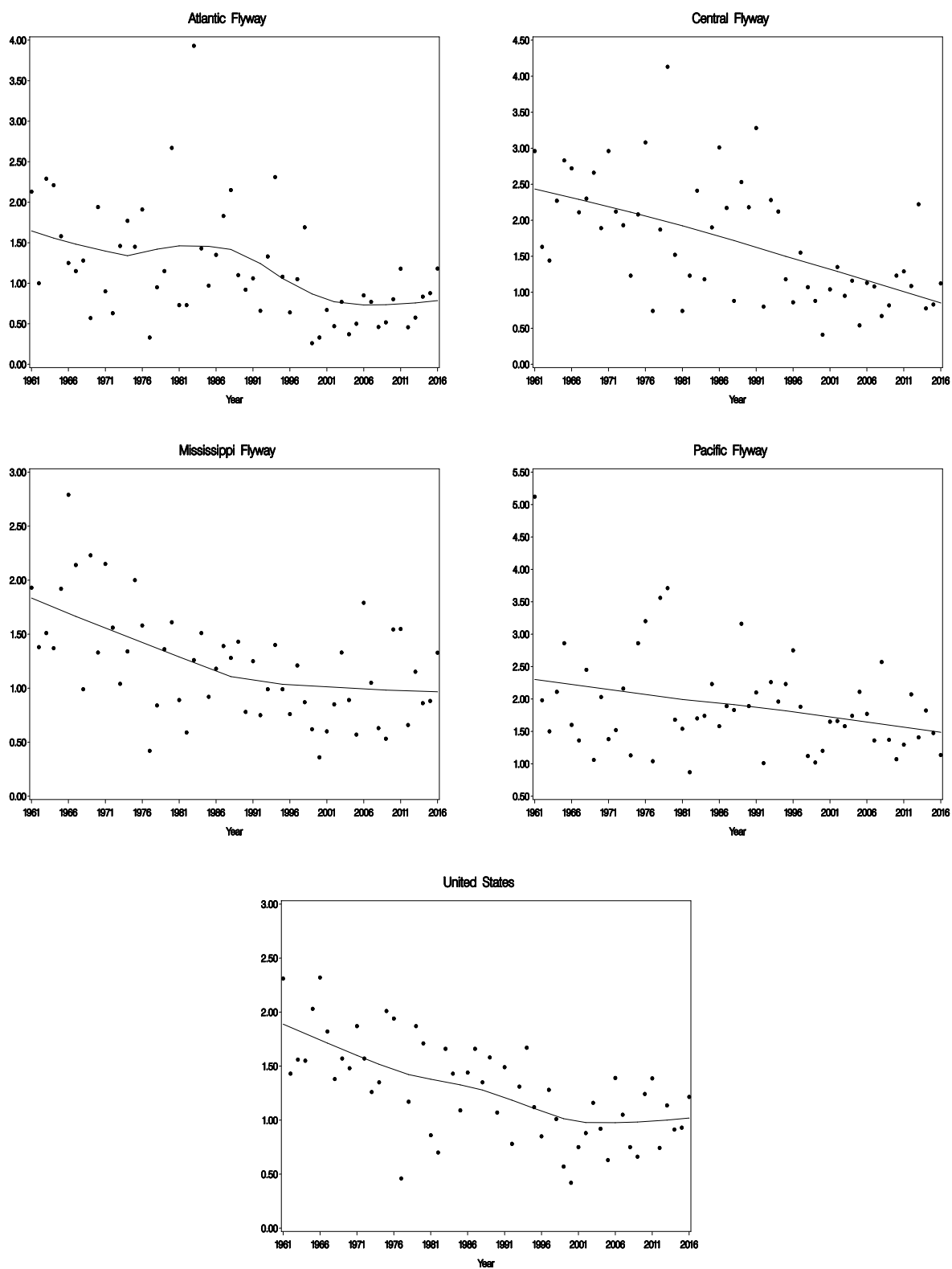


Figure 6. Age ratios of lesser scaup harvested in the United States, 1961-2016.

Table 13. Preliminary estimates of mourning dove harvest and hunter activity during the 2015 and 2016 hunting seasons.^a

	Mourning Dove Harvest		Active Hunters ^b		Mourning Dove Days Afield		Seasonal Harvest Per Hunter	
	2015	2016	2015	2016	2015	2016	2015	2016
Alabama	428,000 ± 19%	396,000 ± 21%	26,700 ± 13%	31,400 ± 14%	59,500 ± 17%	65,400 ± 17%	16.1 ± 23%	12.6 ± 25%
Delaware	24,900 ± 29%	20,100 ± 35%	1,300 ± 27%	1,600 ± 27%	3,700 ± 31%	3,200 ± 27%	19.5 ± 39%	12.3 ± 44%
Florida	141,900 ± 39%	88,200 ± 43%	7,000 ± 35%	7,600 ± 37%	22,400 ± 29%	18,100 ± 33%	20.3 ± 52%	11.6 ± 57%
Georgia	725,700 ± 16%	701,600 ± 15%	41,800 ± 13%	44,600 ± 12%	104,400 ± 21%	105,700 ± 16%	17.3 ± 20%	15.7 ± 19%
Illinois	283,600 ± 30%	316,600 ± 30%	18,400 ± 19%	15,700 ± 20%	55,800 ± 38%	45,500 ± 26%	15.4 ± 36%	20.1 ± 37%
Indiana	93,600 ± 23%	115,200 ± 38%	7,900 ± 22%	6,700 ± 26%	24,600 ± 39%	23,300 ± 32%	11.9 ± 32%	17.1 ± 46%
Kentucky	286,500 ± 29%	305,400 ± 53%	15,200 ± 20%	14,200 ± 23%	38,300 ± 26%	47,300 ± 49%	18.9 ± 36%	21.5 ± 58%
Louisiana	214,100 ± 42%	184,600 ± 47%	16,400 ± 28%	13,700 ± 33%	39,000 ± 40%	25,000 ± 36%	13.1 ± 50%	13.5 ± 57%
Maryland	63,100 ± 28%	65,100 ± 22%	5,200 ± 22%	5,200 ± 24%	12,300 ± 24%	14,600 ± 22%	12.1 ± 36%	12.5 ± 32%
Mississippi	257,100 ± 18%	225,100 ± 19%	16,200 ± 17%	13,800 ± 17%	34,900 ± 21%	31,700 ± 21%	15.9 ± 25%	16.3 ± 26%
North Carolina	734,300 ± 29%	662,300 ± 30%	48,700 ± 20%	46,800 ± 20%	117,500 ± 25%	113,700 ± 24%	15.1 ± 36%	14.1 ± 36%
Ohio	131,200 ± 35%	149,100 ± 35%	8,600 ± 25%	10,700 ± 23%	28,000 ± 33%	34,800 ± 28%	15.3 ± 43%	13.9 ± 42%
Pennsylvania	119,200 ± 35%	142,900 ± 37%	17,800 ± 27%	14,200 ± 29%	58,500 ± 41%	50,100 ± 35%	6.7 ± 44%	10.1 ± 47%
Rhode Island	1,100 ± 124%	1,300 ± 131%	300 ± 77%	200 ± 67%	1,200 ± 125%	600 ± 93%	4.3 ± 146%	6.0 ± 147%
South Carolina	548,600 ± 24%	555,200 ± 37%	27,900 ± 19%	29,900 ± 22%	72,000 ± 21%	90,400 ± 31%	19.7 ± 31%	18.6 ± 43%
Tennessee	288,400 ± 45%	408,500 ± 37%	12,000 ± 42%	25,200 ± 22%	35,100 ± 45%	59,400 ± 30%	24.0 ± 61%	16.2 ± 43%
Virginia	229,500 ± 21%	208,600 ± 35%	17,300 ± 15%	15,300 ± 23%	40,400 ± 27%	40,700 ± 33%	13.2 ± 26%	13.7 ± 42%
West Virginia	13,700 ± 22%	14,900 ± 77%	1,500 ± 18%	1,100 ± 27%	3,700 ± 27%	3,100 ± 39%	9.3 ± 29%	14.0 ± 82%
Wisconsin	60,400 ± 63%	45,500 ± 30%	7,100 ± 33%	5,100 ± 33%	29,400 ± 46%	17,000 ± 34%	8.5 ± 71%	8.9 ± 45%
Eastern Unit Total	4,644,900 ± 8%	4,606,000 ± 9%	297,000	303,100	780,400 ± 8%	789,600 ± 8%		
Arkansas	252,400 ± 22%	258,200 ± 29%	17,800 ± 24%	16,300 ± 28%	37,600 ± 23%	36,200 ± 27%	14.2 ± 33%	15.9 ± 41%
Colorado	204,500 ± 22%	141,200 ± 20%	14,200 ± 15%	13,100 ± 18%	38,900 ± 23%	29,700 ± 19%	14.4 ± 26%	10.8 ± 27%
Iowa	111,500 ± 18%	128,100 ± 19%	9,200 ± 14%	9,700 ± 15%	24,600 ± 16%	25,300 ± 17%	12.1 ± 23%	13.2 ± 24%
Kansas	558,200 ± 20%	427,600 ± 18%	28,600 ± 13%	28,600 ± 12%	86,400 ± 18%	77,200 ± 17%	19.5 ± 24%	14.9 ± 22%
Minnesota	96,700 ± 86%	96,700 ± 79%	9,700 ± 49%	6,500 ± 58%	28,200 ± 54%	18,000 ± 55%	10.0 ± 99%	15.0 ± 98%
Missouri	307,400 ± 24%	321,600 ± 20%	22,500 ± 14%	25,200 ± 14%	54,300 ± 16%	65,100 ± 21%	13.6 ± 28%	12.8 ± 24%
Montana	18,000 ± 55%	16,000 ± 53%	1,600 ± 43%	1,900 ± 44%	5,100 ± 55%	3,500 ± 43%	11.0 ± 70%	8.6 ± 69%
Nebraska	160,600 ± 17%	132,000 ± 22%	9,000 ± 18%	9,700 ± 19%	25,500 ± 18%	24,500 ± 18%	17.9 ± 25%	13.7 ± 29%
New Mexico	111,900 ± 22%	47,900 ± 26%	7,000 ± 12%	4,400 ± 18%	23,100 ± 15%	12,800 ± 33%	16.0 ± 25%	10.8 ± 31%

^a Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.^b Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

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Table 13 (continued). Preliminary estimates of mourning dove harvest and hunter activity during the 2015 and 2016 hunting seasons. ^a

	Mourning Dove Harvest		Active Hunters ^b		Mourning Dove Days Afield		Seasonal Harvest Per Hunter	
	2015	2016	2015	2016	2015	2016	2015	2016
North Dakota	73,500 ± 25%	76,900 ± 30%	4,200 ± 24%	5,300 ± 24%	12,800 ± 25%	15,800 ± 35%	17.3 ± 34%	14.5 ± 39%
Oklahoma	294,000 ± 18%	400,400 ± 28%	18,200 ± 15%	23,800 ± 14%	45,300 ± 17%	58,500 ± 21%	16.1 ± 24%	16.8 ± 32%
South Dakota	84,500 ± 30%	112,400 ± 46%	5,300 ± 16%	5,600 ± 22%	16,000 ± 24%	17,100 ± 33%	16.0 ± 34%	20.1 ± 51%
Texas	4,892,100 ± 13%	5,155,300 ± 19%	220,700 ± 11%	278,700 ± 13%	834,000 ± 14%	956,800 ± 18%	22.2 ± 17%	18.5 ± 23%
Wyoming	14,900 ± 28%	20,100 ± 40%	1,700 ± 29%	1,700 ± 27%	3,300 ± 30%	3,700 ± 36%	8.9 ± 40%	11.5 ± 48%
Central Unit Total	7,180,300 ± 9%	7,334,600 ± 14%	369,800	430,400	1,235,000 ± 10%	1,344,400 ± 13%		
Arizona	401,400 ± 7%	395,800 ± 12%	17,100 ± 3%	21,900 ± 6%	53,900 ± 5%	62,700 ± 9%	23.5 ± 7%	18.1 ± 13%
California	686,800 ± 13%	900,200 ± 15%	43,600 ± 10%	57,100 ± 10%	114,100 ± 14%	163,300 ± 16%	15.8 ± 17%	15.8 ± 18%
Idaho	100,700 ± 45%	108,900 ± 33%	5,200 ± 26%	7,300 ± 29%	18,500 ± 40%	25,300 ± 38%	19.3 ± 52%	15.0 ± 44%
Nevada	22,400 ± 23%	32,100 ± 33%	2,200 ± 22%	3,200 ± 23%	5,000 ± 23%	7,600 ± 28%	10.1 ± 32%	10.1 ± 40%
Oregon	22,500 ± 35%	27,200 ± 40%	3,200 ± 33%	4,300 ± 35%	9,100 ± 43%	8,800 ± 31%	7.0 ± 48%	6.3 ± 53%
Utah	54,800 ± 39%	36,100 ± 32%	6,500 ± 21%	6,000 ± 26%	14,600 ± 29%	15,300 ± 38%	8.5 ± 45%	6.0 ± 41%
Washington	43,600 ± 41%	61,100 ± 30%	4,200 ± 28%	4,600 ± 23%	11,200 ± 34%	12,800 ± 30%	10.3 ± 50%	13.4 ± 38%
Western Unit Total	1,332,200 ± 8%	1,561,400 ± 10%	82,000	104,300	226,500 ± 9%	295,900 ± 10%		
United States Total	13,157,300 ± 6%	13,502,000 ± 8%	748,800	837,800	2,241,900 ± 6%	2,429,800 ± 8%		

^a Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

^b Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

Table 14. Preliminary estimates of white-winged dove harvest and hunter activity during the 2015 and 2016 hunting seasons. ^a

	White-winged Dove Harvest		Active Hunters ^b		White-winged Dove Days Afield		Seasonal Harvest Per Hunter	
	2015	2016	2015	2016	2015	2016	2015	2016
Alabama	2,000 ± 79%	3,200 ± 98%	1,200 ± 68%	600 ± 79%	3,800 ± 91%	1,100 ± 89%	1.7 ± 104%	5.3 ± 126%
Delaware	0	0	0	0	0	0	0	0
Florida	4,000 ± 97%	2,600 ± 140%	1,400 ± 88%	900 ± 136%	3,600 ± 100%	2,500 ± 148%	2.9 ± 131%	2.9 ± 195%
Georgia	1,200 ± 128%	900 ± 166%	2,000 ± 79%	300 ± 138%	3,200 ± 85%	600 ± 138%	0.6 ± 151%	3.0 ± 216%
Louisiana	200 ± 115%	8,600 ± 92%	900 ± 123%	2,300 ± 88%	1,500 ± 100%	6,800 ± 96%	0.2 ± 168%	3.8 ± 128%
Maryland	0	0	200 ± 195%	0	200 ± 195%	0	0	0
Mississippi	0	700 ± 173%	0	200 ± 154%	0	1,000 ± 158%	0	4.2 ± 232%
North Carolina	0	800 ± 117%	0	500 ± 112%	0	800 ± 117%	0	1.7 ± 162%
Pennsylvania	2,000 ± 177%	0	700 ± 163%	0	4,400 ± 185%	0	2.7 ± 241%	0
Rhode Island	100 ± 190%	0	<50 ± 190%	0	100 ± 190%	0	4.0 ± 268%	0
South Carolina	100 ± 194%	0	100 ± 194%	0	100 ± 194%	0	1.0 ± 274%	0
Virginia	0	0	0	0	0	0	0	0
Eastern Unit Total	9,500 ± 60%	16,900 ± 57%	6,400	4,700	16,900 ± 60%	12,800 ± 61%		
Colorado	1,000 ± 89%	2,300 ± 97%	1,400 ± 58%	400 ± 61%	3,600 ± 71%	1,300 ± 81%	0.7 ± 107%	5.6 ± 115%
Kansas	300 ± 101%	300 ± 153%	1,500 ± 73%	100 ± 137%	5,800 ± 121%	400 ± 145%	0.2 ± 125%	2.0 ± 206%
New Mexico	62,300 ± 27%	35,600 ± 45%	3,500 ± 18%	2,700 ± 23%	13,200 ± 19%	9,800 ± 42%	17.9 ± 32%	12.9 ± 50%
Oklahoma	5,900 ± 85%	10,700 ± 77%	2,200 ± 52%	2,500 ± 60%	5,500 ± 48%	5,700 ± 65%	2.7 ± 100%	4.3 ± 98%
Texas	1,963,100 ± 21%	1,469,700 ± 23%	133,700 ± 15%	137,500 ± 18%	511,600 ± 19%	522,100 ± 31%	14.7 ± 26%	10.7 ± 29%
Central Unit Total	2,032,500 ± 20%	1,518,600 ± 22%	142,300	143,300	539,700 ± 18%	539,400 ± 30%		
Arizona	72,200 ± 9%	69,000 ± 17%	11,000 ± 5%	13,200 ± 9%	33,500 ± 7%	37,300 ± 13%	6.6 ± 10%	5.2 ± 20%
California	47,300 ± 28%	62,300 ± 55%	10,700 ± 23%	13,900 ± 26%	25,200 ± 26%	34,900 ± 32%	4.4 ± 36%	4.5 ± 61%
Nevada	500 ± 76%	200 ± 107%	300 ± 67%	100 ± 139%	600 ± 55%	500 ± 130%	1.7 ± 101%	1.7 ± 175%
Utah	0	200 ± 183%	200 ± 138%	200 ± 183%	300 ± 121%	200 ± 183%	0	1.0 ± 259%
Western Unit Total	120,000 ± 12%	131,700 ± 27%	22,200	27,500	59,600 ± 12%	72,900 ± 17%		
United States Total	2,162,100 ± 19%	1,667,100 ± 20%	170,800	175,600	616,200 ± 16%	625,100 ± 26%		

^a Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.^b Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

Table 15. Preliminary estimates of band-tailed pigeon harvest and hunter activity during the 2015 and 2016 hunting seasons. ^a

	Band-tailed Pigeon Harvest		Active Hunters ^b		Band-tailed Pigeon Days Afield		Seasonal Harvest Per Hunter	
	2015	2016	2015	2016	2015	2016	2015	2016
Arizona	500 ± 57%	500 ± 69%	600 ± 24%	100 ± 56%	1,700 ± 31%	400 ± 71%	0.8 ± 62%	3.7 ± 89%
Colorado	200 ± 98%	200 ± 174%	200 ± 44%	100 ± 108%	600 ± 57%	100 ± 140%	0.8 ± 107%	3.7 ± 205%
New Mexico	100 ± 87%	200 ± 81%	100 ± 39%	100 ± 69%	500 ± 51%	100 ± 81%	0.7 ± 96%	3.1 ± 106%
Utah	<50 ± 190%	200 ± 191%	100 ± 93%	<50 ± 191%	100 ± 110%	100 ± 191%	0.3 ± 212%	11.0 ± 271%
Interior Total	800 ± 43%	1,100 ± 62%	1,000	300	3,000 ± 23%	800 ± 55%		
California	6,600 ± 74%	4,400 ± 65%	2,200 ± 53%	2,900 ± 53%	5,400 ± 60%	5,200 ± 57%	3.1 ± 91%	1.5 ± 84%
Oregon	600 ± 49%	1,300 ± 37%	200 ± 24%	300 ± 21%	600 ± 46%	1,000 ± 32%	2.6 ± 55%	4.4 ± 42%
Washington	100 ± 74%	200 ± 61%	100 ± 39%	100 ± 39%	200 ± 48%	100 ± 51%	2.4 ± 84%	3.4 ± 72%
Pacific Coast Total	7,300 ± 67%	5,900 ± 49%	2,400	3,300	6,200 ± 52%	6,300 ± 47%		
United States Total	8,100 ± 61%	7,000 ± 43%	3,500	3,600	9,200 ± 36%	7,100 ± 42%		

^a Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

^b Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

Table 16. Preliminary estimates of American woodcock harvest and hunter activity during the 2015 and 2016 hunting seasons. ^a

	Woodcock Harvest		Active Woodcock Hunters ^b		Woodcock Hunter Days Afield		Seasonal Harvest Per Hunter	
	2015	2016	2015	2016	2015	2016	2015	2016
Connecticut	700 ± 40%	900 ± 58%	800 ± 29%	900 ± 29%	3,900 ± 36%	5,100 ± 40%	0.9 ± 49%	0.9 ± 64%
Delaware	100 ± 103%	400 ± 66%	100 ± 47%	200 ± 132%	300 ± 71%	800 ± 108%	1.3 ± 113%	2.7 ± 148%
Florida	0	<50 ± 194%	<50 ± 193%	200 ± 91%	100 ± 193%	400 ± 103%	0	0.3 ± 214%
Georgia	1,700 ± 76%	500 ± 92%	700 ± 69%	2,000 ± 159%	3,400 ± 70%	4,200 ± 152%	2.3 ± 102%	0.3 ± 184%
Maine	4,700 ± 55%	6,700 ± 31%	2,100 ± 48%	3,200 ± 37%	9,000 ± 50%	10,600 ± 27%	2.2 ± 73%	2.1 ± 48%
Maryland	1,100 ± 63%	500 ± 51%	1,100 ± 91%	500 ± 144%	2,300 ± 83%	800 ± 95%	1.0 ± 110%	0.8 ± 153%
Massachusetts	1,800 ± 31%	2,600 ± 36%	1,000 ± 30%	1,300 ± 28%	6,600 ± 43%	7,000 ± 34%	1.7 ± 43%	1.9 ± 45%
New Hampshire	9,100 ± 52%	6,600 ± 55%	2,100 ± 32%	2,000 ± 33%	14,800 ± 43%	10,300 ± 38%	4.3 ± 61%	3.3 ± 64%
New Jersey	4,700 ± 147%	3,800 ± 86%	700 ± 59%	900 ± 52%	4,300 ± 96%	2,900 ± 49%	7.2 ± 158%	4.4 ± 100%
New York	8,600 ± 36%	4,800 ± 24%	3,900 ± 27%	3,200 ± 31%	18,300 ± 31%	13,900 ± 31%	2.2 ± 45%	1.5 ± 40%
North Carolina	7,100 ± 90%	4,300 ± 122%	3,900 ± 108%	2,600 ± 133%	10,100 ± 81%	5,600 ± 97%	1.8 ± 140%	1.7 ± 181%
Pennsylvania	5,400 ± 45%	3,900 ± 39%	5,000 ± 42%	6,300 ± 37%	17,700 ± 43%	18,200 ± 34%	1.1 ± 61%	0.6 ± 54%
Rhode Island	100 ± 130%	200 ± 68%	100 ± 92%	100 ± 92%	200 ± 54%	300 ± 73%	1.4 ± 160%	2.5 ± 114%
South Carolina	1,900 ± 97%	1,200 ± 59%	2,800 ± 104%	200 ± 28%	13,900 ± 131%	1,100 ± 39%	0.7 ± 142%	5.6 ± 65%
Vermont	3,400 ± 47%	5,300 ± 59%	1,200 ± 31%	1,800 ± 25%	6,000 ± 36%	10,500 ± 38%	2.7 ± 56%	2.9 ± 64%
Virginia	3,200 ± 55%	1,900 ± 35%	1,000 ± 86%	700 ± 94%	3,200 ± 47%	2,600 ± 55%	3.3 ± 102%	2.6 ± 100%
West Virginia	700 ± 52%	700 ± 57%	400 ± 56%	400 ± 58%	1,200 ± 40%	1,600 ± 61%	2.1 ± 76%	1.9 ± 81%
Eastern Region Total	54,500 ± 22%	44,400 ± 19%	27,000	26,600	115,500 ± 21%	96,100 ± 14%		
Alabama	6,100 ± 182%	100 ± 190%	1,000 ± 187%	1,400 ± 194%	5,100 ± 183%	1,400 ± 182%	6.2 ± 260%	< 0.1 ± 271%
Arkansas	7,300 ± 189%	3,000 ± 125%	1,200 ± 188%	4,100 ± 110%	4,800 ± 190%	13,400 ± 157%	6.0 ± 266%	0.7 ± 166%
Illinois	200 ± 114%	1,600 ± 173%	1,000 ± 170%	1,500 ± 130%	1,300 ± 133%	13,200 ± 163%	0.2 ± 205%	1.1 ± 217%
Indiana	600 ± 56%	900 ± 43%	400 ± 99%	300 ± 105%	1,100 ± 83%	1,300 ± 80%	1.4 ± 114%	2.8 ± 113%
Iowa	300 ± 108%	2,900 ± 168%	1,400 ± 95%	500 ± 163%	2,500 ± 90%	1,800 ± 141%	0.2 ± 144%	5.8 ± 234%
Kansas	300 ± 196%	0	1,400 ± 97%	400 ± 196%	2,800 ± 103%	400 ± 196%	0.3 ± 218%	0
Kentucky	600 ± 57%	2,400 ± 159%	700 ± 161%	1,100 ± 179%	2,600 ± 136%	1,500 ± 128%	0.8 ± 171%	2.3 ± 239%
Louisiana	3,500 ± 112%	1,800 ± 116%	2,800 ± 87%	900 ± 155%	12,300 ± 123%	4,600 ± 135%	1.3 ± 142%	1.9 ± 193%
Michigan	63,200 ± 23%	64,900 ± 26%	26,000 ± 18%	24,100 ± 19%	124,700 ± 21%	107,100 ± 21%	2.4 ± 29%	2.7 ± 32%
Minnesota	25,600 ± 42%	25,900 ± 36%	13,500 ± 34%	13,500 ± 34%	47,600 ± 40%	46,000 ± 35%	1.9 ± 54%	1.9 ± 49%
Mississippi	3,600 ± 147%	<50 ± 188%	600 ± 176%	600 ± 192%	2,300 ± 140%	1,300 ± 194%	6.2 ± 229%	< 0.1 ± 269%

^a Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.^b Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

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Table 16 (continued). Preliminary estimates of American woodcock harvest and hunter activity during the 2015 and 2016 hunting seasons. ^a

	Woodcock Harvest		Active Woodcock Hunters ^b		Woodcock Hunter Days Afield		Seasonal Harvest Per Hunter	
	2015	2016	2015	2016	2015	2016	2015	2016
Missouri	400 ± 110%	3,400 ± 162%	100 ± 42%	2,200 ± 105%	600 ± 63%	6,200 ± 120%	3.0 ± 118%	1.5 ± 194%
Nebraska	0	600 ± 196%	0	600 ± 196%	0	600 ± 196%	0	1.0 ± 277%
Ohio	2,100 ± 85%	3,200 ± 81%	1,900 ± 80%	2,600 ± 68%	7,500 ± 95%	8,200 ± 88%	1.1 ± 117%	1.3 ± 106%
Oklahoma	0	0	1,800 ± 137%	0	1,800 ± 137%	0	0	0
Tennessee	0	0	0	1,400 ± 191%	0	9,800 ± 194%	0	0
Texas	900 ± 169%	12,100 ± 181%	100 ± 73%	11,300 ± 136%	600 ± 112%	28,400 ± 139%	6.5 ± 184%	1.1 ± 226%
Wisconsin	31,000 ± 25%	35,100 ± 25%	14,700 ± 27%	11,700 ± 28%	66,600 ± 29%	55,100 ± 32%	2.1 ± 37%	3.0 ± 38%
Central Region Total	145,700 ± 19%	158,000 ± 20%	68,600	78,200	284,200 ± 16%	300,200 ± 21%		
United States Total	200,200 ± 15%	202,300 ± 16%	95,600	104,800	399,700 ± 13%	396,300 ± 16%		

^a Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

^b Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

Table 17. Preliminary estimates of snipe harvest and hunter activity during the 2015 and 2016 hunting seasons. ^a

	Snipe Harvest		Active Snipe Hunters ^b		Snipe Hunter Days Afield		Seasonal Harvest Per Hunter	
	2015	2016	2015	2016	2015	2016	2015	2016
Connecticut	400 ± 194%	200 ± 187%	<50 ± 194%	100 ± 184%	100 ± 194%	300 ± 171%	10.0 ± 274%	2.9 ± 262%
Delaware	0	0	0	0	0	0	0	0
Florida	9,600 ± 88%	63,000 ± 83%	1,600 ± 89%	3,900 ± 80%	5,300 ± 81%	15,500 ± 101%	5.8 ± 125%	16.3 ± 115%
Georgia	4,400 ± 129%	800 ± 115%	1,700 ± 155%	200 ± 110%	3,100 ± 107%	800 ± 138%	2.5 ± 202%	4.3 ± 159%
Maine	0	0	<50 ± 192%	0	100 ± 192%	0	0	0
Maryland	4,000 ± 196%	100 ± 188%	400 ± 196%	<50 ± 188%	900 ± 196%	<50 ± 188%	9.0 ± 277%	5.0 ± 266%
Massachusetts	<50 ± 125%	0	<50 ± 73%	100 ± 108%	100 ± 89%	600 ± 137%	1.2 ± 145%	0
New Hampshire	0	<50 ± 186%	100 ± 181%	<50 ± 120%	100 ± 169%	<50 ± 140%	0	0.5 ± 222%
New Jersey	300 ± 188%	0	100 ± 177%	<50 ± 189%	800 ± 193%	<50 ± 189%	2.8 ± 259%	0
New York	0	400 ± 146%	<50 ± 192%	300 ± 166%	<50 ± 192%	400 ± 130%	0	1.3 ± 221%
North Carolina	0	0	0	500 ± 196%	0	1,100 ± 196%	0	0
Pennsylvania	0	2,800 ± 196%	0	900 ± 196%	0	1,900 ± 196%	0	3.0 ± 277%
Rhode Island	0	0	0	<50 ± 187%	0	<50 ± 187%	0	0
South Carolina	700 ± 110%	1,700 ± 156%	100 ± 90%	800 ± 167%	200 ± 100%	900 ± 147%	6.8 ± 142%	2.2 ± 228%
Vermont	<50 ± 178%	0	100 ± 179%	0	100 ± 172%	0	0	0
Virginia	900 ± 170%	100 ± 120%	200 ± 140%	400 ± 127%	800 ± 154%	400 ± 113%	4.1 ± 221%	0.2 ± 175%
West Virginia	<50 ± 171%	<50 ± 183%	<50 ± 169%	<50 ± 183%	<50 ± 144%	100 ± 183%	0.5 ± 241%	2.0 ± 259%
Atlantic Flyway Total	20,300 ± 64%	69,100 ± 76%	4,600	7,300	11,700 ± 52%	22,100 ± 74%		
Alabama	5,700 ± 168%	500 ± 195%	1,300 ± 182%	100 ± 195%	1,400 ± 171%	100 ± 195%	4.4 ± 248%	5.0 ± 276%
Arkansas	0	0	0	0	0	0	0	0
Illinois	0	0	0	0	0	0	0	0
Indiana	300 ± 90%	100 ± 77%	<50 ± 47%	400 ± 180%	200 ± 63%	1,300 ± 176%	6.8 ± 101%	0.3 ± 196%
Iowa	100 ± 86%	10,000 ± 148%	1,000 ± 133%	1,600 ± 108%	2,000 ± 148%	4,800 ± 121%	0.1 ± 159%	6.2 ± 184%
Kentucky	0	0	100 ± 195%	0	800 ± 195%	0	0	0
Louisiana	2,600 ± 195%	12,600 ± 195%	100 ± 195%	100 ± 195%	3,600 ± 195%	1,600 ± 195%	22.0 ± 276%	100.0 ± 276%
Michigan	200 ± 143%	200 ± 195%	1,400 ± 165%	100 ± 195%	6,800 ± 141%	300 ± 195%	0.2 ± 218%	2.0 ± 276%
Minnesota	500 ± 195%	700 ± 113%	200 ± 137%	300 ± 96%	600 ± 169%	900 ± 118%	2.5 ± 238%	2.0 ± 149%
Mississippi	0	2,000 ± 196%	0	1,000 ± 196%	0	1,000 ± 196%	0	2.0 ± 277%
Missouri	600 ± 196%	0	600 ± 196%	0	1,800 ± 196%	0	1.0 ± 277%	0

^a Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.^b Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

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Table 17 (continued). Preliminary estimates of snipe harvest and hunter activity during the 2015 and 2016 hunting seasons. ^a

	Snipe Harvest		Active Snipe Hunters ^b		Snipe Hunter Days Afield		Seasonal Harvest Per Hunter	
	2015	2016	2015	2016	2015	2016	2015	2016
Ohio	300 ± 123%	0	200 ± 87%	100 ± 195%	1,100 ± 108%	100 ± 195%	1.3 ± 151%	0
Tennessee	0	0	0	0	0	0	0	0
Wisconsin	100 ± 144%	0	1,200 ± 174%	1,200 ± 196%	12,800 ± 194%	2,500 ± 196%	0.1 ± 226%	0
Mississippi Flyway Total	0,400 ± 105%	26,200 ± 111%	6,200	5,000	31,200 ± 90%	12,700 ± 70%		
Colorado	200 ± 134%	1,000 ± 196%	400 ± 105%	300 ± 196%	700 ± 116%	300 ± 196%	0.7 ± 170%	3.0 ± 277%
Kansas	400 ± 188%	12,300 ± 196%	400 ± 194%	500 ± 196%	400 ± 192%	1,800 ± 196%	1.0 ± 270%	27.0 ± 277%
Nebraska	0	0	0	100 ± 195%	0	100 ± 195%	0	0
New Mexico	0	<50 ± 182%	0	<50 ± 182%	0	<50 ± 182%	0	1.0 ± 257%
North Dakota	100 ± 61%	2,100 ± 116%	100 ± 43%	1,200 ± 129%	200 ± 51%	1,900 ± 124%	2.0 ± 75%	1.8 ± 173%
Oklahoma	200 ± 82%	1,700 ± 196%	100 ± 68%	800 ± 196%	300 ± 86%	2,500 ± 196%	2.7 ± 107%	2.0 ± 277%
South Dakota	800 ± 195%	300 ± 187%	300 ± 138%	300 ± 190%	900 ± 166%	1,500 ± 190%	2.5 ± 239%	1.0 ± 266%
Texas	6,500 ± 174%	1,200 ± 109%	3,000 ± 191%	300 ± 86%	8,800 ± 192%	400 ± 92%	2.2 ± 258%	4.5 ± 139%
Wyoming	100 ± 63%	100 ± 95%	<50 ± 55%	<50 ± 63%	100 ± 61%	100 ± 70%	2.1 ± 84%	2.0 ± 114%
Central Flyway Total	8,400 ± 137%	18,500 ± 132%	4,200	3,500	11,400 ± 149%	8,600 ± 83%		
Arizona	0	100 ± 194%	0	100 ± 194%	0	100 ± 194%	0	1.0 ± 275%
California	2,400 ± 148%	3,700 ± 166%	600 ± 153%	800 ± 155%	800 ± 112%	1,200 ± 112%	4.1 ± 212%	4.7 ± 227%
Idaho	1,000 ± 165%	0	100 ± 64%	0	500 ± 112%	0	9.0 ± 177%	0
Montana	<50 ± 138%	100 ± 130%	<50 ± 131%	<50 ± 90%	100 ± 135%	200 ± 152%	1.5 ± 190%	1.5 ± 158%
Nevada	300 ± 167%	200 ± 192%	100 ± 172%	200 ± 134%	200 ± 118%	400 ± 139%	3.1 ± 240%	1.5 ± 234%
Oregon	800 ± 126%	0	500 ± 145%	100 ± 135%	2,400 ± 179%	200 ± 152%	1.6 ± 192%	0
Utah	200 ± 195%	200 ± 196%	300 ± 152%	200 ± 196%	900 ± 159%	200 ± 196%	0.7 ± 248%	1.0 ± 277%
Washington	400 ± 57%	300 ± 80%	500 ± 135%	100 ± 46%	900 ± 76%	200 ± 58%	0.9 ± 147%	2.7 ± 92%
Pacific Flyway Total	5,300 ± 79%	4,600 ± 136%	2,100	1,500	5,900 ± 81%	2,500 ± 64%		
Alaska	100 ± 124%	0	100 ± 124%	0	100 ± 134%	0	2.0 ± 176%	0
United States Total	44,500 ± 47%	118,400 ± 55%	17,200	17,300	60,300 ± 56%	45,800 ± 44%		

^a Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.^b Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

Table 18. Preliminary estimates of coot harvest and hunter activity during the 2015 and 2016 hunting seasons. ^a

	Coot Harvest		Active Coot Hunters ^b		Coot Hunter Days Afield		Seasonal Harvest Per Hunter	
	2015	2016	2015	2016	2015	2016	2015	2016
Connecticut	0	100 ± 146%	100 ± 136%	100 ± 184%	500 ± 136%	200 ± 141%	0	1.3 ± 235%
Delaware	0	100 ± 161%	0	<50 ± 85%	0	<50 ± 109%	0	5.0 ± 182%
Florida	5,000 ± 127%	4,200 ± 125%	900 ± 157%	1,400 ± 158%	2,200 ± 133%	2,500 ± 174%	5.6 ± 202%	3.0 ± 202%
Georgia	1,600 ± 135%	36,900 ± 195%	400 ± 134%	1,500 ± 179%	1,600 ± 156%	4,300 ± 184%	4.1 ± 191%	24.8 ± 265%
Maine	0	0	0	0	0	0	0	0
Maryland	<50 ± 187%	<50 ± 188%	<50 ± 187%	<50 ± 188%	<50 ± 187%	<50 ± 188%	1.0 ± 264%	1.0 ± 266%
Massachusetts	100 ± 167%	200 ± 194%	100 ± 156%	<50 ± 194%	100 ± 115%	100 ± 194%	1.9 ± 228%	5.0 ± 274%
New Hampshire	200 ± 195%	0	100 ± 195%	0	200 ± 195%	0	2.0 ± 276%	0
New Jersey	<50 ± 110%	0	<50 ± 103%	0	100 ± 128%	0	1.3 ± 150%	0
New York	200 ± 122%	600 ± 148%	100 ± 110%	100 ± 95%	100 ± 117%	200 ± 112%	2.7 ± 164%	6.8 ± 176%
North Carolina	0	0	0	0	0	0	0	0
Pennsylvania	0	<50 ± 192%	0	1,000 ± 186%	0	1,000 ± 178%	0	< 0.1 ± 268%
Rhode Island	100 ± 193%	0	<50 ± 193%	0	<50 ± 193%	0	3.0 ± 273%	0
South Carolina	200 ± 128%	0	100 ± 106%	0	100 ± 106%	0	2.7 ± 167%	0
Vermont	0	300 ± 191%	0	100 ± 183%	0	1,200 ± 194%	0	2.9 ± 265%
Virginia	400 ± 110%	500 ± 104%	200 ± 140%	400 ± 118%	600 ± 80%	1,500 ± 107%	1.9 ± 178%	1.3 ± 157%
West Virginia	200 ± 176%	100 ± 183%	<50 ± 169%	<50 ± 123%	<50 ± 144%	200 ± 174%	5.7 ± 244%	7.0 ± 220%
Atlantic Flyway Total	8,000 ± 84%	43,100 ± 167%	2,000	4,600	5,600 ± 71%	11,200 ± 87%		
Alabama	2,600 ± 182%	3,200 ± 196%	1,300 ± 182%	1,600 ± 196%	1,300 ± 182%	18,900 ± 196%	2.0 ± 257%	2.0 ± 277%
Arkansas	700 ± 195%	0	100 ± 195%	0	100 ± 195%	0	5.0 ± 276%	0
Illinois	1,000 ± 195%	200 ± 195%	100 ± 195%	200 ± 195%	100 ± 195%	2,800 ± 195%	8.0 ± 276%	1.0 ± 276%
Indiana	700 ± 106%	800 ± 66%	100 ± 39%	100 ± 34%	500 ± 88%	500 ± 81%	10.3 ± 113%	10.6 ± 74%
Iowa	15,300 ± 184%	500 ± 124%	600 ± 163%	100 ± 49%	1,300 ± 142%	200 ± 80%	26.5 ± 246%	6.4 ± 133%
Kentucky	2,700 ± 83%	0	400 ± 80%	0	4,400 ± 140%	0	6.7 ± 115%	0
Louisiana	41,000 ± 81%	25,200 ± 119%	3,100 ± 84%	2,800 ± 98%	17,400 ± 122%	4,300 ± 88%	13.1 ± 116%	9.2 ± 154%
Michigan	3,500 ± 196%	100 ± 195%	1,200 ± 184%	100 ± 195%	6,000 ± 191%	300 ± 195%	2.8 ± 269%	1.0 ± 276%
Minnesota	4,400 ± 106%	18,700 ± 123%	1,500 ± 114%	2,900 ± 87%	2,900 ± 108%	8,800 ± 94%	3.0 ± 156%	6.4 ± 151%
Mississippi	0	6,100 ± 196%	0	1,000 ± 196%	0	2,000 ± 196%	0	6.0 ± 277%
Missouri	11,100 ± 196%	0	600 ± 196%	0	1,800 ± 196%	0	18.0 ± 277%	0

^a Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.^b Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

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Table 18 (continued). Preliminary estimates of coot harvest and hunter activity during the 2015 and 2016 hunting seasons. ^a

	Coot Harvest		Active Coot Hunters ^b		Coot Hunter Days Afield		Seasonal Harvest Per Hunter	
	2015	2016	2015	2016	2015	2016	2015	2016
Ohio	0	0	100 ± 133%	0	200 ± 141%	0	0	0
Tennessee	0	0	0	0	0	0	0	0
Wisconsin	2,200 ± 108%	4,900 ± 196%	2,300 ± 128%	1,200 ± 196%	14,300 ± 174%	1,200 ± 196%	1.0 ± 167%	4.0 ± 277%
Mississippi Flyway Tot	85,100 ± 58%	59,600 ± 69%	11,500	9,900	50,400 ± 71%	39,200 ± 99%		
Colorado	200 ± 195%	3,200 ± 196%	100 ± 195%	400 ± 154%	100 ± 195%	1,000 ± 145%	2.0 ± 276%	7.5 ± 249%
Kansas	1,700 ± 192%	0	400 ± 192%	500 ± 196%	900 ± 192%	500 ± 196%	4.0 ± 271%	0
Nebraska	0	0	0	0	0	0	0	0
New Mexico	0	100 ± 91%	0	<50 ± 73%	0	200 ± 132%	0	2.3 ± 117%
North Dakota	5,000 ± 96%	2,100 ± 79%	1,600 ± 102%	1,200 ± 124%	2,600 ± 119%	2,300 ± 106%	3.1 ± 140%	1.7 ± 147%
Oklahoma	2,700 ± 193%	0	1,300 ± 136%	0	20,700 ± 189%	0	2.0 ± 237%	0
South Dakota	300 ± 195%	0	200 ± 195%	0	200 ± 195%	0	2.0 ± 276%	0
Texas	118,600 ± 190%	6,300 ± 194%	3,100 ± 181%	100 ± 194%	29,600 ± 191%	400 ± 194%	38.0 ± 263%	99.0 ± 275%
Wyoming	200 ± 67%	400 ± 97%	<50 ± 64%	<50 ± 55%	100 ± 74%	100 ± 94%	5.4 ± 92%	10.0 ± 112%
Central Flyway Total	128,700 ± 175%	12,200 ± 114%	6,800	2,300	54,100 ± 127%	4,500 ± 69%		
Arizona	<50 ± 193%	900 ± 123%	<50 ± 193%	200 ± 101%	<50 ± 193%	200 ± 101%	1.0 ± 273%	5.0 ± 159%
California	14,800 ± 70%	8,900 ± 105%	3,100 ± 71%	1,500 ± 113%	4,100 ± 56%	2,300 ± 82%	4.8 ± 100%	5.7 ± 155%
Idaho	200 ± 193%	0	<50 ± 193%	0	<50 ± 193%	0	4.0 ± 274%	0
Montana	300 ± 142%	1,600 ± 176%	<50 ± 91%	700 ± 191%	100 ± 119%	900 ± 160%	8.0 ± 169%	2.2 ± 260%
Nevada	900 ± 96%	1,500 ± 126%	400 ± 82%	100 ± 154%	1,400 ± 112%	200 ± 107%	2.3 ± 126%	15.1 ± 199%
Oregon	1,600 ± 117%	900 ± 163%	900 ± 117%	100 ± 135%	3,100 ± 146%	500 ± 156%	1.8 ± 165%	8.5 ± 212%
Utah	7,400 ± 78%	8,900 ± 57%	1,800 ± 55%	2,200 ± 56%	5,800 ± 64%	5,400 ± 58%	4.1 ± 95%	4.1 ± 80%
Washington	6,100 ± 154%	600 ± 75%	800 ± 115%	100 ± 45%	1,400 ± 106%	300 ± 67%	7.5 ± 192%	5.4 ± 87%
Pacific Flyway Total	31,300 ± 49%	23,200 ± 49%	7,100	5,000	16,000 ± 42%	9,700 ± 41%		
United States Total	253,200 ± 92%	138,200 ± 61%	27,400	21,800	126,000 ± 62%	64,500 ± 63%		

^a Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

^b Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

Table 19. Preliminary estimates of gallinule harvest and hunter activity during the 2015 and 2016 hunting seasons. ^a

	Gallinule Harvest		Active Gallinule Hunters ^b		Gallinule Hunter Days Afield		Seasonal Harvest Per Hunter	
	2015	2016	2015	2016	2015	2016	2015	2016
Delaware	0	0	0	0	0	0	0	0
Florida	0	9,400 ± 196%	0	900 ± 196%	0	1,900 ± 196%	0	10.0 ± 277%
Georgia	1,800 ± 139%	200 ± 193%	300 ± 179%	<50 ± 193%	800 ± 179%	100 ± 193%	6.7 ± 227%	5.0 ± 273%
New Jersey	<50 ± 125%	0	<50 ± 125%	<50 ± 185%	100 ± 163%	<50 ± 185%	1.0 ± 177%	0
New York	0	0	0	0	0	0	0	0
North Carolina	0	0	0	0	0	0	0	0
Pennsylvania	0	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0	0
Virginia	<50 ± 181%	200 ± 195%	<50 ± 127%	200 ± 195%	100 ± 128%	200 ± 195%	1.5 ± 221%	1.0 ± 276%
West Virginia	0	0	0	0	0	0	0	0
Atlantic Flyway Total	1,900 ± 136%	9,700 ± 189%	300	1,200	1,000 ± 151%	2,200 ± 170%		
Alabama	0	0	0	0	0	0	0	0
Arkansas	0	0	0	0	0	0	0	0
Kentucky	0	0	0	0	0	0	0	0
Louisiana	2,600 ± 154%	0	800 ± 157%	0	11,500 ± 153%	0	3.1 ± 220%	0
Michigan	0	0	0	0	0	0	0	0
Minnesota	200 ± 195%	0	100 ± 195%	100 ± 195%	100 ± 195%	100 ± 195%	2.0 ± 275%	0
Mississippi	0	0	0	0	0	0	0	0
Ohio	0	0	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0	0	0
Wisconsin	0	0	<50 ± 193%	0	<50 ± 193%	0	0	0
Mississippi Flyway Total	2,800 ± 146%	0	1,100	100	12,100 ± 146%	100 ± 195%		
New Mexico	0	0	0	0	0	0	0	0
Oklahoma	0	0	0	0	0	0	0	0
Texas	0	0	2,700 ± 196%	0	5,400 ± 196%	0	0	0
Central Flyway Total	0	0	2,700	0	5,400 ± 196%	0		

^a Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

^b Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

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Table 19 (continued). Preliminary estimates of gallinule harvest and hunter activity during the 2015 and 2016 hunting seasons. ^a

	Gallinule Harvest		Active Gallinule Hunters ^b		Gallinule Hunter Days Afield		Seasonal Harvest Per Hunter	
	2015	2016	2015	2016	2015	2016	2015	2016
Arizona	0	0	0	0	0	0	0	0
California	4,300 ± 193%	200 ± 133%	400 ± 187%	<50 ± 106%	800 ± 183%	100 ± 108%	11.6 ± 269%	6.0 ± 170%
Nevada	<50 ± 153%	0	<50 ± 153%	0	<50 ± 153%	0	1.0 ± 216%	0
Pacific Flyway Total	4,300 ± 193%	200 ± 133%	400	<50	800 ± 181%	100 ± 108%		
United States Total	8,900 ± 107%	10,000 ± 184%	4,500	1,300	19,200 ± 107%	2,400 ± 156%		

^a Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

^b Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

Table 20. Preliminary estimates of rail harvest and hunter activity during the 2015 and 2016 hunting seasons. ^a

	Rail Harvest		Active Rail Hunters ^b		Rail Hunter Days Afield		Seasonal Harvest Per Hunter	
	2015	2016	2015	2016	2015	2016	2015	2016
Connecticut	100 ± 116%	100 ± 141%	<50 ± 109%	<50 ± 92%	<50 ± 109%	100 ± 135%	18.0 ± 159%	8.3 ± 168%
Delaware	0	0	0	0	0	0	0	0
Florida	3,500 ± 150%	0	100 ± 135%	0	300 ± 143%	0	34.0 ± 202%	0
Georgia	3,400 ± 138%	3,400 ± 116%	100 ± 94%	100 ± 94%	300 ± 120%	200 ± 105%	35.3 ± 167%	23.8 ± 149%
Maine	0	0	0	0	0	0	0	0
Maryland	8,200 ± 196%	<50 ± 186%	400 ± 196%	<50 ± 186%	900 ± 196%	<50 ± 186%	19.0 ± 277%	2.0 ± 264%
Massachusetts	<50 ± 166%	<50 ± 194%	<50 ± 115%	<50 ± 178%	100 ± 128%	200 ± 174%	1.5 ± 202%	0.9 ± 263%
New Jersey	1,600 ± 69%	2,700 ± 54%	100 ± 42%	100 ± 42%	200 ± 56%	300 ± 61%	21.1 ± 81%	22.5 ± 68%
New York	0	0	<50 ± 192%	0	<50 ± 192%	0	0	0
North Carolina	0	0	0	0	0	0	0	0
Pennsylvania	0	0	0	0	0	0	0	0
Rhode Island	100 ± 193%	0	<50 ± 193%	0	100 ± 193%	0	2.0 ± 273%	0
South Carolina	3,400 ± 99%	2,100 ± 130%	200 ± 75%	100 ± 104%	300 ± 102%	400 ± 129%	22.2 ± 124%	21.7 ± 167%
Virginia	4,200 ± 64%	3,800 ± 53%	300 ± 117%	300 ± 116%	700 ± 98%	500 ± 76%	14.3 ± 133%	11.9 ± 128%
West Virginia	0	0	<50 ± 171%	<50 ± 183%	<50 ± 171%	100 ± 183%	0	0
Atlantic Flyway Total	24,500 ± 74%	12,100 ± 44%	1,200	800	3,000 ± 66%	1,800 ± 46%		
Alabama	0	0	0	0	0	0	0	0
Arkansas	0	0	0	0	0	0	0	0
Illinois	0	0	0	0	0	0	0	0
Indiana	100 ± 68%	300 ± 193%	300 ± 130%	300 ± 133%	800 ± 127%	600 ± 132%	0.2 ± 147%	1.0 ± 235%
Iowa	0	500 ± 105%	0	100 ± 59%	0	100 ± 67%	0	8.4 ± 120%
Kentucky	0	0	<50 ± 191%	0	100 ± 191%	0	0	0
Louisiana	200 ± 195%	0	100 ± 195%	0	2,700 ± 195%	0	2.0 ± 276%	0
Michigan	1,000 ± 195%	0	200 ± 135%	0	1,400 ± 140%	0	6.5 ± 237%	0
Minnesota	0	0	0	100 ± 137%	0	200 ± 145%	0	0
Mississippi	0	0	0	0	0	0	0	0

^a Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

^b Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

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Table 20 (continued). Preliminary estimates of rail harvest and hunter activity during the 2015 and 2016 hunting seasons. ^a

	Rail Harvest		Active Rail Hunters ^b		Rail Hunter Days Afield		Seasonal Harvest Per Hunter	
	2015	2016	2015	2016	2015	2016	2015	2016
Missouri	0	0	0	0	0	0	0	0
Ohio	<50 ± 194%	400 ± 155%	800 ± 184%	100 ± 128%	1,200 ± 142%	300 ± 147%	0.1 ± 267%	5.0 ± 201%
Tennessee	0	0	0	0	0	0	0	0
Wisconsin	0	0	1,000 ± 190%	0	11,100 ± 195%	0	0	0
Mississippi Flyway Total	1,300 ± 153%	1,100 ± 84%	2,300	600	17,300 ± 130%	1,200 ± 78%		
Colorado	0	0	0	0	0	0	0	0
Kansas	0	0	0	0	0	0	0	0
Nebraska	0	0	0	0	0	0	0	0
New Mexico	0	0	0	0	0	0	0	0
Oklahoma	400 ± 153%	0	<50 ± 90%	0	100 ± 96%	0	17.7 ± 178%	0
Texas	0	1,300 ± 192%	2,700 ± 196%	<50 ± 192%	5,400 ± 196%	100 ± 192%	0	50.0 ± 272%
Wyoming	500 ± 140%	0	100 ± 137%	<50 ± 175%	300 ± 144%	<50 ± 175%	5.0 ± 195%	0
Central Flyway Total	1,000 ± 103%	1,300 ± 192%	2,800	<50	5,800 ± 182%	100 ± 179%		
United States Total	26,800 ± 68%	14,500 ± 41%	6,400	1,300	26,100 ± 96%	3,200 ± 41%		

^a Variance estimates are presented as the 95% confidence interval as a percent of the point estimate.

^b Hunter number estimates at the management unit and national levels may be biased high, because the HIP sample frames are state specific; therefore hunters are counted more than once if they hunt in >1 state. Variance inestimable.

Table 21. Preliminary estimates of rail harvest during the 2015 and 2016 hunting seasons. Species-specific estimates were derived from 5-year running averages of species composition estimates from the Migratory Bird Wing Collection Survey.

Flyway	Sora		Virginia		Clapper		King	
	2015	2016	2015	2016	2015	2016	2015	2016
Atlantic	3,800	1,600	100	100	20,700	10,500	0	0
Mississippi	1,200	1,000	<50	0	100	100	<50	0
Central	900	1,100	<50	200	0	0	0	0
U.S. Total	5,900	3,600	200	300	20,800	10,500	<50	0

Appendix A. Names and affiliations of people who coordinate the Harvest Information Program or help provide hunter name and address data to the USFWS.

Jim Robertson, Alabama Department of Conservation and Natural Resources
Robert Bowles, Alaska Department of Fish and Game
Anis Aoude, Arizona Game and Fish Department
Susan Porter, Arkansas Game and Fish Commission
Tony Straw, California Department of Fish and Game
Ed Gorman, Colorado Parks and Wildlife
Min Huang, Connecticut Department of Environmental Protection
Matthew DiBona, Delaware Department of Natural Resources and Environmental Control
Jamie Feddersen, Florida Fish and Wildlife Conservation Commission
Michael Spencer, Georgia Department of Natural Resources
Craig Weidmeier, Idaho Department of Fish and Game
Don Bricker, Illinois Department of Natural Resources
Adam Phelps, Indiana Department of Natural Resources
Matthew VanGundy, Iowa Department of Natural Resources
Mary Becker, Kansas Department of Wildlife, Parks, and Tourism
Denise Boebinger, Kentucky Department of Fish and Wildlife Resources
Michelle Rayburn, Louisiana Department of Wildlife and Fisheries
Bill Swan, Maine Department of Inland Fisheries and Wildlife
Brent Evans, Maryland Wildlife and Heritage Service
Rick Kennedy and H Heussman, Massachusetts Division of Fisheries and Wildlife
Kristen Shuler, Michigan Department of Natural Resources
Margaret Dexter, Minnesota Department of Natural Resources
Jason Thompson, Mississippi Department of Wildlife, Fisheries and Parks
Julie Fleming, Missouri Department of Conservation
Hank Worsech, Montana Fish, Wildlife and Parks
Mark Vrtiska, Nebraska Game and Parks Commission
Paula Lannen, Nevada Department of Wildlife
Susan Perry, New Hampshire Fish and Game Department
Barbara Stoff, New Jersey Division of Fish and Wildlife
Kristin Madden, New Mexico Department of Game and Fish
Vicky Wagenbaugh, New York Department of Environmental Conservation
Bobby Dunn, North Carolina Wildlife Resources Commission
Jerry Gulke, North Dakota Game and Fish Department
Andrew Burt, Ohio Department of Natural Resources
Rodney Derrick, Oklahoma Department of Wildlife Conservation
Brandon Reishus, Oregon Department of Fish and Wildlife
Terry Heckrote, Pennsylvania Game Commission
Ed Ferris, Rhode Island Division of Fish and Wildlife
Boyd Braxton, South Carolina Department of Natural Resources
Corey Huxoll, South Dakota Game, Fish, and Parks
Gary Clouse, Tennessee Wildlife Resources Agency
Kevin Kraii, Texas Parks and Wildlife Department
Heather Bernales, Utah Division of Wildlife Resources

Kris Nolan, Vermont Fish and Wildlife Department
Bob Ellis and Gary Costanzo, Virginia Department of Game and Inland Fisheries
Andrew Duff, Washington Department of Fish and Wildlife
Michael Peters, West Virginia Division of Natural Resources
Brian Dhuey, Wisconsin Department of Natural Resources
Matthew Barnes, Wyoming Game and Fish Department

Appendix B. Names and affiliations of waterfowl wingbee participants.

Atlantic Flyway Wingbee, Laurel, MD January 23 to 27, 2017

J. Archer, U.S. Fish and Wildlife Service - Patuxent Wildlife Research Refuge; V. Arillo, Maryland Natural Resources Police; E. Bailey, U.S. Fish and Wildlife Service - Patuxent Wildlife Research Refuge; J. Baird, Delaware Division of Fish and Wildlife; J. Barley, U.S. Geological Survey - Patuxent Wildlife Research Center; J. Bennett, Maryland Department of Natural Resources - Wildlife and Heritage; A. Bethea, U.S. Fish and Wildlife Service - DMBM/BHS; P. Bosco,; J. Bourne, U.S. Fish and Wildlife Service - Patuxent Wildlife Research Refuge; R. Burrows, Maryland Department of Natural Resources - Wildlife and Heritage; S. Chandler, U.S. Fish and Wildlife Service - DMBM/BHS; K. Flemming, U.S. Fish and Wildlife Service - DMBM/BHS; B. Ford, U.S. Fish and Wildlife Service - DMBM; J. Foth, Delaware Division of Fish and Wildlife; N. Hengst, U.S. Fish and Wildlife Service - DMBM/BHS; J. Keenely, Maryland Natural Resources Police; C. Linton, Maryland Natural Resources Police; J. Malpass, U.S. Geological Survey - BBL; K. McCargo, North Carolina Wildlife Resources Commission; F. McGilvrey; K. McGrew, University of Delaware; T. Mikula, U.S. Fish and Wildlife Service; B. Mill, Maryland Natural Resources Police; C. Miller, U.S. Fish and Wildlife Service - Patuxent Wildlife Research Refuge; D. O'Brien, Maryland Department of Natural Resources - Wildlife and Heritage; A. Ocampo, New Jersey Division of Fish and Wildlife; J. O'Connor, New York State Department of Conservation; P. Padding, U.S. Fish and Wildlife Service - DMBM/Atlantic Flyway Representative; D. Prosser, U.S. Geological Survey - Patuxent Wildlife Research Center; B. Raftovich, U.S. Fish and Wildlife Service - DMBM/BHS; K. Reintsma, U.S. Geological Survey - Patuxent Wildlife Research Center; W. Rhodes, U.S. Fish and Wildlife Service - DMBM/WPS; T. Roberts, U.S. Fish and Wildlife Service - DMBM/Atlantic Flyway; B. Rosamond, U.S. Fish and Wildlife Service; N. Sagwitz, Maryland Department of Natural Resources - Wildlife and Heritage; L. Schneckenberger, U.S. Fish and Wildlife Service - OLE; B. Sharick, New York State Department of Environmental Conservation; M. Simmons, U.S. Fish and Wildlife Service; J. Sullivan, U.S. Geological Survey - Patuxent Wildlife Research Center; J. Vance, West Virginia Department of Natural Resources; K. Welsh, U.S. Fish and Wildlife Service

Mississippi Flyway Wingbee, Carbondale, IL January 30 to February 03, 2017

C. Alger, U.S. Fish and Wildlife Service; R. Brady, U.S. Fish and Wildlife Service; J. Carbaugh, Arkansas Game and Fish Commission; S. Chandler, U.S. Fish and Wildlife Service - DMBM/BHS; R. Colvis, Kentucky Department of Fish and Wildlife Resources; K. Cornilsen, Iowa Department of Natural Resources; J. Currismanio, Missouri Department of Conservation; B. Davic, Minnesota Department of Natural Resources; J. Elster, Ohio Department of Natural Resources - Division of Wildlife; B. Falish, U.S. Fish and Wildlife Service; S. Fitzsimons, Illinois Department of Natural Resources; D. Fronczak, U.S. Fish and Wildlife Service - Mississippi Flyway; H. Fry, Iowa Department of Natural Resources; D. Fuqua, Tennessee Wildlife Resources Agency; W. Futch, U.S. Fish and Wildlife Service; T. Giroux, Michigan Department of Natural Resources; K. Grandimas, U.S. Fish and Wildlife Service - Cypress Creek National Wildlife Refuge; J. Hanks, Louisiana Department of Wildlife and Fisheries; J. Hartleb, U.S. Fish and Wildlife Service; N. Hengst, U.S. Fish and Wildlife Service - DMBM/BHS; B. Holten, Louisiana Department of Wildlife and Fisheries; M. Kapsch, U.S. Fish and Wildlife Service; B. Kennon, Louisiana Department of Wildlife and Fisheries; C. Krumnauer, Michigan Department of Natural Resources; D. McClain, Ohio Department of Natural Resources - Division of Wildlife; R. Muszynski, Ohio Department of Natural Resources - Division of Wildlife; A. Novara, U.S. Fish and Wildlife Service (retired); J. Poore, Tennessee Wildlife Resources Agency; D. Rave, Minnesota Department of Natural Resources; K. Rohling, U.S. Fish and Wildlife Service - Cypress Creek National Wildlife Refuge; N. Saake, Nevada Department of Wildlife (retired); R. Vinson, U.S. Fish and Wildlife Service; R. Whitton, Illinois Department of Natural Resources; G. Wilkerson, U.S. Fish and Wildlife Service; J. Young, U.S. Fish and Wildlife Service

Central Flyway Wingbee, Emporia, KS February 14 to 17, 2017

O. Best, Texas Parks and Wildlife Department; T. Bidrowski, Kansas Department of Wildlife, Parks and Tourism; J. Black, Kansas Department of Wildlife, Parks and Tourism; D. Butler, Texas Parks and Wildlife Department; S. Chandler, U.S. Fish and Wildlife Service - DMBM/BHS; M. Cline, New Mexico Department of Game and Fish; R. Deroche, U.S. Fish and Wildlife Service; A. Dinges, North Dakota Game and Fish Department; J. Dubovsky, U.S. Fish and Wildlife Service - DMBM/Central Flyway; C. Dunagan, Texas Parks and Wildlife Department; A. Friesen, Kansas Department of Wildlife, Parks and Tourism; J. Gammonley, Colorado Parks and Wildlife; C. Gregory, Texas Parks and Wildlife Department; M. Grovijahn, South Dakota Game, Fish and Parks; M. Haugan, Nebraska Game and Parks Commission; L. Hancock, U.S. Fish and Wildlife Service; J. Hansen, Montana Fish, Wildlife, and Parks; J. Harbit, Kansas Department of Wildlife, Parks and Tourism; N. Hengst, U.S. Fish and Wildlife Service - DMBM/BHS; N. Huck, Wyoming Game and Fish Department; T. Joseph, Wyoming Game and Fish Department; K. Kraai, Texas Parks and Wildlife Department; D. Lee, U.S. Fish and Wildlife Service- CO; J. Lee, Nebraska Game and Parks Commission; T. Liddick, U.S. Fish and Wildlife Service - DMBM/MBSB; S. McDowell, Texas Parks and Wildlife Department; R. Murano, South Dakota Game, Fish and Parks; J. Neal, Oklahoma Department of Wildlife Conservation; D. Olson, U.S. Fish and Wildlife Service; J. Rempe, Oklahoma Department of Wildlife Conservation; J. Richardson, Oklahoma Department of Wildlife Conservation; T. Schmidt, U.S. Fish and Wildlife Service; K. Schoonover, Oklahoma Department of Wildlife Conservation ; R. Schultheis, Kansas Department of Wildlife, Parks and Tourism; C. Setash, Colorado State University; C. Shipes, Texas Parks and Wildlife Department; R. Stutheit, Nebraska Game and Parks Commission; M. Szymanski, North Dakota Game and Fish Department; M. Taylor, Nebraska Game and Parks Commission; P. Thorpe, U.S. Fish and Wildlife Service - DMBM/MBSB; M. Vrtiska, Nebraska Game and Parks Commission; R. Warhurst, North Dakota Natural Resources Trust; K. Warner, Canadian Wildlife Service

Pacific Flyway Wingbee, Anderson, CA February 20 to 24, 2017

K. Armstrong, California Department of Fish and Wildlife ; B. Bales, Pacific Birds Habitat Joint Venture; B. Bartz, Oregon Department of Fish and Wildlife; L. Belo-Rex, California Department of Fish and Wildlife and U.S. Geological Survey ; C. braastad, U.S. Fish and Wildlife Service; J. Bredy, U.S. Fish and Wildlife Service - DMBM/MBSB; E. Butler, Washington Department of Fish and Wildlife; C. Cain, U.S. Fish and Wildlife Service - DMBM/BHS; M. Carpenter, U.S. Fish and Wildlife Service - Sacramento National Wildlife Refuge Complex; S. Chandler, U.S. Fish and Wildlife Service - DMBM/BHS; N. Cook, University of Nevada at Reno; B. Fettig, California Waterfowl Association; G. Gerstenberg, California Department of Fish and Wildlife; T. Hand, Washington Department of Fish and Wildlife; N. Hengst, U.S. Fish and Wildlife Service - DMBM/BHS; N. LaShamb, California Department of Fish and Wildlife; J. Laughlin, U.S. Department of Agriculture - APHIS/WS; R. Michalco, U.S. Department of Agriculture - Wildlife Services; K. Neill, Nevada Department of Wildlife; S. Olson, U.S. Fish and Wildlife Service - DMBM/Pacific Flyway; B. Reishus, Oregon Department of Fish and Wildlife; W. Rhodes, U.S. Fish and Wildlife Service - DMBM/MBSB; O. Rocha, California Department of Fish and Wildlife; N. Saake, Nevada Department of Wildlife (retired); J. Sands, U.S. Fish and Wildlife Service - Region 1; J. Satter, California Department of Fish and Wildlife; Z. Sedlmayer, Idaho Department of Fish and Game; B. Shults, U.S. Fish and Wildlife Service - Region 7/Migratory Birds; D. Skalos, California Department of Fish and Wildlife; N. Stephens, Washington Department of Fish and Wildlife; T. Thornton, Oregon Department of Fish and Wildlife; D. VanBaren, California Department of Fish and Wildlife; K. Walton, Oregon Department of Fish and Wildlife; M. Wilson, Washington Department of Fish and Wildlife; C. Wippermann, Idaho Department of Fish and Game; B. Wishnek, U.S. Fish and Wildlife Service - Bear Lake National Wildlife Refuge; B. Wyatt, California Department of Fish and Wildlife

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